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THE CONTINUATION SCHOOL IN THE UNITED STATES

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CONTENTS.

ILLUSTRATIONS.

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
BUREAU OF EDUCATION,
Washington, May 25, 1907.

SIR: I have the honor to transmit herewith a monograph entitled "The Continuation School in the United States," by Mr. Arthur J. Jones, and to recommend that it be published as an issue of the Bulletin of the Bureau of Education. This study, as originally prepared, was accepted in partial satisfaction of the requirements for the degree of doctor of philosophy at Columbia University. The subject of which it treats is one of wide educational interest, and it presents a greater body of well-organized and recent information touching this subject than is accessible elsewhere.

I have previously expressed the conviction that the Republic needs a body of citizens no one of whom shall have been wholly lacking in systematic and fairly continuous educational training up to the age of the first exercise of the electoral franchise. That is, in order that the members of our democracy may fitly discharge the full duty of citizenship, in our rapidly changing society, no year of life up to the age of 21 can safely be left bare of any provision for schooling. For those who can continue to devote the later years of this period chiefly to education, such provision is found in high schools, technical and professional schools, and colleges. But what provision shall be made for those who must devote these years of their lives chiefly to the earning of livelihood, and for that large number of boys and girls who leave school, for whatever reason, even before the completion of the elementary course of study? This monograph shows with some fullness what has already been done for the schooling of such youth. It gives some indication of what may be done in this direction. But it shows, too, how inadequate is the pioneer provision which has hitherto been made in this field.

Very respectfully,

ELMER ELLSWORTH BROWN,
Commissioner.

THE SECRETARY OF THE INTERIOR.

THE CONTINUATION SCHOOL IN THE UNITED STATES.

By ARTHUR J. JONES.

I. INTRODUCTION.

The term "continuation school," while commonly used in England for some time, has not been generally employed in this country and may need some further explanation. As used in this bulletin, it refers to any type of school which offers to people while they are at work opportunity for further education and training. It thus presupposes educational training of some kind, and continues but does not necessarily repeat the work of the regular school. It is supplementary to the work of the regular school in the sense that it is additional to it, and is supplementary to the training which the individual is receiving in his occupation, in the sense that it aims to give him that which he can not receive in his daily work. The term "supplementary school" is, however, used in such a vague way at present that the term "continuation school" seems preferable.

This work was undertaken at the suggestion of Dean James E. Russell, of Teachers College, Columbia University, after a preliminary study of the German Fortbildungsschulen had been made. So little systematic work has been done in this direction in the United States that it seemed well worth while to make a study of the situation as it is here, and a comparison of the means employed in Germany, England, and the United States.

At the very outset the author was greatly handicapped by lack of data, nor was it possible to secure entirely adequate statistics. It is difficult to obtain definite information concerning the ordinary day schools even after years of effort. In the case of the various types of continuation school, this difficulty is greatly increased. Even the meager data given in school reports for day schools are, in the majority of cases, not given for evening schools. This is due, in large measure, to the fact that the educational authorities conduct evening schools as a side issue, and not as a part of their regular educational system. The need for such work and its great importance are only beginning to be felt.

One thing is brought out clearly—the great need of careful study of the conditions in each community with the object of finding out—(1) to what extent educational agencies reach the young people, how long they remain in school, and, if possible, why they leave; (2) in what kinds of work those who have dropped out of school are engaged, what the actual conditions are under which they are working, and how much useful training they are receiving in their occupations. So far the only important attempt to make such a study is that of the Massachusetts Commission on Industrial and Technical Education. This report is admirable, but can not take the place of a definite study of local conditions even in Massachusetts, and much less in other places. The local conditions in every community should be studied in order to determine the means to be employed in remedying them when necessary. Such a study will reveal many things unsuspected before, and give one the only means to an adequate understanding of the situation. The kind of school suited to one city will not be the kind needed in another, for the conditions vary with each locality. Superintendents and boards of education can well afford to spend the time and money necessary to obtain possession of all the facts in the case.

In the following study an attempt has been made:

1. To show the need of continuation schools. This has been done (*a*) by showing the extent to which boys and girls drop out of school at different ages and grades, and the comparative number in public and private schools after the thirteenth year; (*b*) by showing the extent to which the existing supplementary agencies reach those out of school; and (*c*) by indicating something of the conditions of these young people in their occupations.

2. To describe the agencies employed in Germany and England to meet a similar situation.

3. To describe representative types of continuation school in the United States, and to show what education young people are actually receiving in these schools, how it compares with that received in the day schools in amount, and in the extent to which it meets their needs.

4. To show the place of the continuation school in our educational system and the general purpose of such a school in a democracy.

This is to be regarded as only a preliminary report on the subject, a clearing of the ground, so to speak, and an attempt to indicate the general direction which such an inquiry must take. It is hoped that the study will throw some light on existing conditions, and at least call attention to the need of more complete educational facilities.

II. STATISTICAL EXHIBIT OF SCHOOL ATTENDANCE AND WITHDRAWAL.

A. WITHDRAWAL FROM THE PUBLIC SCHOOLS.

As a preliminary to any investigation of continuation schools or their equivalents in the United States, we need data concerning the number of pupils who drop out from the existing schools at different ages and at different stages of advancement in the course.

Direct observation of the forces that eliminate pupils from educational influence, and direct measurement of the number of those eliminated are out of question. Estimates only are possible, and these must be made on the basis of a mass of very complex data. In place of any detailed discussion of the subject of withdrawal, the reader is referred to the rather elaborate study soon to be published by Prof. E. L. Thorndike, of Teachers College, Columbia University. He estimates that of 100 children who enter the public schools of cities of 25,000 or over (excluding colored children in southern cities), and who live till 19, 90 stay till the fourth grade, 81 stay till the fifth grade, 68 stay till the sixth grade, 54 stay till the seventh grade, 40 stay till the last grammar grade (usually the eighth, but sometimes the ninth, and rarely the seventh); 27 stay till the first year of the high school, 17 stay till the second year of the high school, 12 stay till the third year of the high school, 8 stay till the fourth year of the high school.

With respect to age the retention is estimated by Professor Thorndike as follows: 100 till 10 years of age, 98 till 11 years of age, 97 till 12 years of age, 88 till 13 years of age, 70 till 14 years of age, 47 till 15 years of age, 30 till 16 years of age, 16.5 till 17 years of age, 8.6 till 18 years of age.

I estimate the retention to the age of 19 as 4.

The extent to which the schools of different cities retain their pupils at ages above 13 and in the grades above the fifth varies very greatly. For a real appreciation of the extent of withdrawal, the detailed tables of Professor Thorndike's monograph should be examined.

For the present purpose, the essential fact, besides the total amount of withdrawal, is its "course," or relative amount year by year and grade by grade. The proportion of any one age leaving school within a year increases steadily from the twelfth year on, even the percentage dropping out at the legal age limit for free attendance not being so high as the later percentages. In considering withdrawal by grades, it is found that the failure of the high school to retain those whom it gets from the grammar grades is equally

marked. In two respects this increased proportional withdrawal is of educational and social importance:

First, it indicates that the schools in the upper grades fail to meet the enlarged needs and interests of the great majority of the young people to whom it may be reasonably expected that they should minister.

Secondly, it indicates that the greatest proportionate withdrawal, being in the upper grades, is among the brighter children. To be specific: When the last grammar grade is reached, only 40 per cent of the pupils entering school are left. As stated, this 40 per cent represents the brighter element. An elimination of a third of these represents a greater loss to society than does the same numerical loss lower down in the grades. It is likewise true that the most of those eliminated in the higher grades are not so gifted as the very few who stay still longer.

Since the interests of the young are constantly widening as they ascend the grades, it is increasingly difficult for the school to meet their needs. The stronger the pupil the stronger will outside interests appeal to him and attract him away from the pursuit of studies in which he has comparatively little interest. Hence, during this time, among those who will be the first to leave school on any pretext will be many, who would, with proper training, become influential leaders in society. But for want of it they are too often subjected to the deadening influence of the treadmill of the factory and the shop and lose all the ambition they once had for improvement.

It may be urged that some, at least, of this withdrawal is due to economic conditions, to indifference in the home, and to other reasons outside of the school. This is true, but the question of the causes of leaving school is a very complicated one, and no one knows very much about it. While poverty may in some cases be one of the causes, it is safe to say that in the majority of cases young people drop out of school because they or their parents prefer that they be elsewhere. Whatever the cause, it is proper that society should demand that this heavy withdrawal be reduced to a minimum; or, if this is found to be impossible, or even perhaps undesirable, that some other means be employed by which the young people not in school may be given the opportunity of continuing their education and training.

B. ATTENDANCE AT SCHOOLS OTHER THAN SUPPLEMENTARY.

In treating of withdrawal, it was stated that of the pupils entering school only 70 per cent will remain at the fourteenth year of age, and that from that age onward the elimination is especially rapid.

It is here assumed that it is the duty of the public schools to provide in some way for all children up to the age of 14. It is a gener-

ally accepted principle, as indicated by the compulsory education laws of the various States, that up to the age of 14 the State should not only offer the opportunity for education to all, but, in addition, see that they get it. After the age of 14, it is generally conceded, the State should offer opportunity for further education to all who can profit by it; but it is by no means generally held that compulsion should be used in seeing that all take advantage of it. The State does offer such opportunity in its public high schools, but this opportunity is taken advantage of by a comparatively small class.

In discussing an enlargement of the opportunity for educational training beyond the age of 14, the first point that must be determined is how far existing educational agencies are operative; to what extent young people are taking advantage of the opportunities offered, and in what kind of schools they are enrolled. The following study will endeavor to throw some light on this point.

It is manifestly impossible to secure accurate data on this subject from all the cities of the United States. Accordingly the following plan was adopted. The United States was divided into four parts—Eastern, Western, Southern, and Central—and the relative number of cities of 30,000 inhabitants and above was determined for each division. Cities of 30,000 and above were alone considered, because the problem of continuation schools does not become so marked in cities smaller than these. Thirty cities were chosen at random from the list, each section receiving its proportionate number. The choice seemed in an unusual degree to represent the country as a whole, with its varying types of industry.

All the printed information in regard to the number of pupils in the public and the private schools was carefully analyzed. In addition, printed blanks were sent out to each of the cities where such printed information was not available. In these blanks the following information was called for:

1. Estimated population of the city, by age and sex, for years of age 13 to 20, in 1903, 1904, and 1905.
2. Pupils in the public day schools, by age and sex, from 13 to 20 years old.
3. Children not in schools of any kind, by age and sex.
4. Number 13 to 21 years of age in private schools and colleges.

The information called for in regard to evening schools was:

1. The enrollment in 1903, 1904, and 1905, by age and sex, for years of age 13 to 20, in elementary, high, drawing, cooking, and industrial classes.
2. Time of instruction: (*a*) Hours per evening, (*b*) evenings per week, (*c*) weeks per year.
3. Qualifications for admission.
4. Teachers, by sex.
5. Cost of evening schools, classed under: (*a*) Teaching and supervision, (*b*) printing and advertising, (*c*) supplies, (*d*) text-books, (*e*) fuel and light, (*f*) janitor, (*g*) miscellaneous.

6. The superintendents were asked to underscore the departments of instruction tried in their schools, and number 1, 2, 3, etc., in order of preference, those of the following which they thought most important: (1) Elementary, (2) high, (3) trade and industrial, (4) drawing, (5) cooking.

The replies from these cities were not general enough nor complete enough to warrant any final conclusions. Very few superintendents had the data asked for, and most of those who had them were not able to devote the necessary time to compile them from the records. In general, it has been found, with these as with other statistics, that unless the information is already in the written reports it is seldom possible to obtain it. From the printed reports and from such data as were sent in reply to the blanks sufficient information was obtained from 16 cities to warrant fairly definite conclusions.

I. PUBLIC DAY SCHOOLS.

The immediate question which we have to consider is, How far do the schools in the cities selected reach the children from the age of 14 to that of 20? We will examine first the distribution of the pupils between these ages who are actually in school. Table I (p. 13) shows the relative number at each age in the public day schools of the 16 cities. This table is arranged by groups for various age limits. It would read as follows: In Camden, of the pupils in the public day schools between the ages of 14 and 20, 49 per cent are 14 years old, 27 per cent are 15 years old, 13.5 per cent are 16 years old, 6 per cent are 17 years old, 3.5 per cent are 18 years old, 0.7 per cent are 19 years old, and 0.3 per cent are 20 years old. The next group takes the pupils between the ages of 15 and 20, and so on to the last group, which shows that, of the pupils 19 and 20 years old, 73 per cent are 19 years old and 27 per cent are 20 years old.

Taking the group of children from 14 to 20 years of age, we see a striking variability. Portland, Me., has the lowest per cent of pupils 14 years old—30, and New Orleans the highest—52. This means that in New Orleans over half the pupils in the public schools between the ages given are 14 years old, showing a failure on the part of the public schools to reach any considerable number after they are 14 years old. In Portland, on the contrary, there are nearly as many 15-year-olds in school as 14-year-olds and 81 per cent are between the ages of 14 and 16. All show strikingly that between the ages 17 and 20 very few proportionately are in school. Spokane has the largest percentage between these ages—26, while Jersey City has the lowest—7.3. This decrease in the proportion of those in school becomes much more marked the greater the age, as would be natural. Grand Rapids has 5 per cent of its pupils 14 to 20 years old between the ages of 19 and 20, while Jersey City has only 1.3 per cent. Again, considering

the 20-year-olds, the range is from 0.3 per cent in Jersey City and Camden to 2 per cent in Grand Rapids. Considering the medians of this group, we notice a fairly steady decline during the years 14, 15, and 16. Between 16 and 17, however, there is a sudden drop of nearly 50 per cent, from 17.5 per cent at 16 to 9 per cent at 17, and the drop between the eighteenth and nineteenth year is more marked still, being from 5 per cent to 2 per cent, or 60 per cent. This drop is also seen clearly in all the other groups. It is the most marked of any.

Some of those from 18 to 20 are not in school because they have graduated, but the fact remains that they are *not in school* whether graduates or not. The present question is, How far does the public day school reach the young people between the ages of 14 and 20? If some few have passed through the course offered and are not in school, it still remains true that the State does not provide opportunity for their education during these ages in day schools. It may well be true that those who have graduated from the high school are the very ones who would give greatest returns for further educational opportunity. Considering the question in this light, we see that a very small part of the total number of pupils between the ages of 14 and 20 are in school at the ages of 19 and 20—only 3 per cent. Again, of 100 pupils in school who are between the ages of 15 and 20, 95 per cent are 18 years old or younger; in the next group, 92.5 per cent are from 16 to 18 years old; in the group of 17 to 20 year-olds, those 17 and 18 constitute 85 per cent of the whole number; and the 18-year-olds are 61 per cent of the 18, 19, and 20 year-olds in school. In all the cities the 18-year-olds constitute more than one-half of the enrollment of the 18, 19, and 20 year-olds.

TABLE I.—*Distribution of pupils between certain age limits in public schools, expressed in percentages of total number between ages indicated.*

City.	Between 14 and 20 years of age.							Between 15 and 20 years of age.					
	14.	15.	16.	17.	18.	19.	20.	15.	16.	17.	18.	19.	20.
1 Camden, N. J	49.0	27.0	13.5	6.0	3.5	0.7	0.3	58.0	26.5	12.0	7.0	1.0	0.5
2 Chester, Pa	42.0	25.0	16.0	9.0	5.0	2.0	1.0	44.0	27.0	15.0	8.0	4.0	2.0
3. Chicago, Ill	40.0	26.0	17.0	9.0	5.0	2.0	1.0	44.5	28.0	15.0	8.0	3.0	1.5
4. Columbus, Ohio	37.0	26.0	18.0	11.0	5.0	2.0	1.0	41.5	28.0	17.5	8.0	3.0	2.0
5. Grand Rapids, Mich	35.0	29.0	17.0	9.0	6.0	3.0	2.0	44.0	26.0	13.0	9.0	5.0	3.0
6. Jersey City, N. J	50.2	31.0	11.5	4.0	2.0	1.0	0.3	62.5	23.0	8.0	4.0	2.0	0.5
7. Little Rock, Ark	38.0	29.0	17.5	9.0	3.5	2.0	1.0	47.0	29.0	15.0	6.0	2.0	1.0
8. New Orleans, La	52.0	24.5	13.0	6.0	3.0	1.0	0.5	51.0	27.0	13.0	6.0	2.0	1.0
9. Newton, Mass	32.0	30.0	18.3	10.2	5.5	2.7	1.3	44.0	27.0	15.0	8.0	4.0	2.0
10. Omaha, Nebr	38.0	28.0	18.0	9.0	4.0	2.0	1.0	45.0	28.0	15.0	7.0	3.0	2.0
11. Portland, Me	30.0	27.5	23.5	9.0	7.0	2.0	1.0	39.0	33.5	13.0	10.0	3.5	1.0
12. St. Louis, Mo	49.5	27.0	13.0	8.0	3.0	1.0	0.5	53.0	26.5	12.0	6.0	2.0	0.5
13. Spokane, Wash	34.5	20.5	19.0	13.5	9.0	3.0	1.0	31.5	28.0	20.5	14.0	4.0	2.0
14. Springfield, Mass	35.0	26.0	18.0	11.0	6.0	3.0	1.0	39.5	27.0	16.5	10.0	5.0	2.0
15. Utica, N. Y	47.0	26.0	13.0	8.0	4.0	1.5	0.5	49.0	24.5	15.0	8.0	2.5	1.0
16. York, Pa	48.5	25.5	13.5	7.5	3.5	1.0	0.5	50.0	26.5	14.5	7.0	1.5	0.5
Medians	39.0	26.5	17.5	9.0	5.0	2.0	1.0	45.0	27.0	15.0	8.0	3.0	2.0

TABLE I.—*Distribution of pupils between certain age limits in public schools, expressed in percentages of total number between ages indicated*—Continued.

City.	Between 16 and 20 years of age.					Between 17 and 20 years of age.				Between 18 and 20 years of age.			Between 19 and 20 years of age.	
	16.	17.	18.	19.	20.	17.	18.	19.	20.	18.	19.	20.	19.	20.
1. Camden, N. J.	56.0	26.0	14.0	3.0	1.0	60.0	33.0	5.0	2.0	81.0	14.0	5.0	73.0	27.0
2. Chester, Pa.	48.5	26.5	14.5	7.0	3.5	51.5	27.5	14.0	7.0	57.0	28.0	15.0	66.0	34.0
3. Chicago, Ill.	51.0	27.0	13.0	6.0	3.0	54.0	28.0	12.0	6.0	61.0	27.0	12.0	69.0	31.0
4. Columbus, Ohio	48.0	30.0	14.0	5.0	3.0	57.0	27.5	10.0	5.5	64.0	24.0	12.0	66.0	34.0
5. Grand Rapids, Mich.	46.0	24.0	17.0	8.0	5.0	44.0	31.0	16.0	9.0	55.0	28.0	17.0	63.0	37.0
6. Jersey City, N. J.	61.4	21.6	10.8	5.8	1.4	56.0	26.7	13.7	3.6	60.5	31.0	8.5	79.0	21.0
7. Little Rock, Ark.	53.0	28.0	11.0	5.0	2.0	61.5	23.0	10.0	5.5	60.0	27.0	13.0	67.0	33.0
8. New Orleans, La.	55.0	27.0	11.0	5.0	2.0	60.0	25.0	10.0	0.5	61.0	26.0	13.0	68.0	32.0
9. Newton, Mass.	48.2	26.7	14.4	7.2	3.5	56.0	27.8	13.9	6.7	57.4	28.6	14.0	67.3	32.7
10. Omaha, Nebr.	52.0	28.0	13.0	5.0	3.0	57.0	26.0	11.0	6.0	61.0	26.0	13.0	66.0	34.0
11. Portland, Me.	55.0	21.5	16.0	5.5	2.0	48.0	35.5	12.5	4.0	69.0	24.0	7.0	78.0	22.0
12. St. Louis, Mo.	57.0	26.0	12.0	4.0	1.0	60.0	27.5	10.0	2.5	70.0	24.5	5.5	82.0	18.0
13. Spokane, Wash.	41.5	30.0	20.0	5.5	3.0	51.5	34.0	10.0	4.5	70.0	20.0	10.0	69.0	31.0
14. Springfield, Mass.	45.0	27.0	16.0	8.0	4.0	49.0	29.0	15.0	7.0	57.0	30.0	13.0	70.0	30.0
15. Utica, N. Y.	47.5	30.0	15.5	5.0	2.0	56.5	30.0	10.0	3.5	68.0	23.5	8.5	73.0	27.0
16. York, Pa.	52.5	29.5	14.0	3.5	0.5	62.0	30.0	7.0	1.0	77.0	20.0	3.0	90.0	10.0
Medians	51.5	27.0	14.0	5.0	2.5	57.0	28.0	10.0	5.0	61.0	27.0	12.0	69.0	31.0

This does not show the actual proportion that is under instruction. In order to do this, the ratio of pupils at each age from 14 to 20 to the estimated number of young people 14 years old is given (Tables II and III). That is, disregarding the previous life of the young people and taking them between the ages of 14 and 20, how many of them are actually in the public day schools?

Considerable difficulty was met with at the very beginning of this inquiry. It was hard to find any accurate data on the number of young people 14 years old in the cities studied. Springfield, Mass., is the only one of the cities that gave the estimated number by age. This was given only up to 14 years. Columbus and Grand Rapids gave the estimated number by age groups, 14 to 16 and 16 to 21, which was not definite enough for the present purpose. The only other source is the United States census returns of 1900. Here again we are met with the difficulty that, for the cities, the returns were only for the age groups of 10 to 14, 15 to 19, and 20 to 24. The only data for each age were for the separate States. In the absence of definite statistics, the data by age groups for the cities were distributed according to the age distribution given for the States in which the cities were located. These were then compared with all the available data given in the reports for the individual cities. As far as could be ascertained they agreed very closely, but were nearly always somewhat too large. In the case of the age 14, this was evidently due to the commonly known fact that in all census returns there is an emphasis on the even numbers. However, these statistics were for 1900, while most of those of enrollment of pupils are for later years, 1902 to 1905. Comparing the data of age distribution as above stated with the estimated increase in the population, it was clear that the figures as given represented nearly the actual condition; certainly they were not too high. They were accordingly used in all

except one case—that of Spokane, where this would result in making the enrollment at 14 more than the estimated number of 14-year-olds. In this case the number was increased to compare with the estimated number in the city from 6 to 21, as given in the school reports of 1902 to 1904.

In the table showing the per cent of pupils at each age based on the estimated number of children 14 years old (Table II), it will be seen that from one to five records are taken, the average being used. Two, Spokane and Utica, represent only one record. The variability shown is decidedly marked. In the case of 14-year-old children, New Orleans has only 32.5 per cent in the public schools, while Spokane has 87.2 per cent, a difference of 54.7 per cent. In the 15-year-old column, New Orleans is still the lowest, with 15.4 per cent, while Newton leads with 75.8 per cent, a difference of 60.4 per cent. Coming to the 19-year-old pupils, Camden is lowest with 0.6 per cent, closely followed by St. Louis and New Orleans, with 0.7 per cent. Springfield, Newton, and Grand Rapids are very close together at the head with 7.3, 7, and 6.9 per cent, respectively. St. Louis has only 0.15 per cent of 20-year-old pupils, while Grand Rapids has 4.1 per cent. These variations show how much more nearly the public school system reaches the young in some cities than in others.

Considering the medians, we see that less than half of the young people 15 years old are attending the public day schools, and the proportion decreases very rapidly; at 16 less than one-third, at 17 only about one-sixth are in the public schools. At 18 only 7 per cent, at 19 a little over 3 per cent, and at 20 years just 1.6 per cent are attending public day schools. This certainly shows in a striking manner that the public schools are not taking care of the young people between these ages. The median percentages are represented graphically in diagram 1, p. 16.

TABLE II.—*Enrollment in public elementary and secondary schools at certain years of age, expressed in percentages of whole number of children 14 years old.*

City.	Number of reports used.	Between 14 and 20 years of age.							Per cent of average attendance on total enrollment.
		14.	15.	16.	17.	18.	19.	20.	
1. Camden, N. J	3	50.0	27.2	13.6	6.3	3.5	0.6	0.25	67
2. Chester, Pa	3	80.5	47.9	29.5	16.3	8.7	4.4	2.3	.....
3. Chicago, Ill	2	47.0	30.6	19.6	10.3	5.3	2.3	1.0	94
4. Columbus, Ohio	4	64.5	45.2	30.3	18.9	9.1	3.4	1.7	82
5. Grand Rapids, Mich.	3	77.7	65.5	37.9	19.4	13.7	6.9	4.1	79
6. Jersey City, N. J	3	51.1	31.4	11.6	4.1	2.0	1.0	0.3	71
7. Little Rock, Ark	3	77.0	59.0	35.9	18.5	7.0	3.1	1.6	73
8. New Orleans, La	2	32.5	15.4	8.1	4.0	1.7	0.7	0.35	71
9. Newton, Mass	5	81.0	75.8	46.6	25.8	13.9	7.0	3.4	89
10. Omaha, Nebr	2	63.2	45.6	29.0	15.7	7.0	3.0	1.6	78
11. Portland, Me	3	74.0	67.5	57.6	22.6	16.3	5.9	1.7	80
12. St. Louis, Mo	2	33.3	18.0	9.0	4.2	1.9	0.7	0.15	74
13. Spokane, Wash	1	87.2	52.2	47.0	34.0	22.5	6.5	3.0	74
14. Springfield, Mass	5	77.4	57.0	39.2	20.0	14.0	7.3	3.3	77
15. Utica, N. Y	1	74.9	41.3	20.5	12.3	6.6	2.3	0.85	75
16. York, Pa	4	67.6	35.3	18.9	10.5	5.1	1.3	0.2	.....
Medians	.....	70.3	45.4	29.25	16.0	7.0	3.05	1.6	76

TABLE III.—*Percentage enrollment in public schools, classified into elementary and secondary pupils (estimated).*

	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
Elementary	61.6	30.0	10.86	1.8	0.4	0.13	0.0
Secondary	9.2	15.4	18.39	14.2	6.6	2.92	1.6

EXPLANATION OF TABLES II AND III.

Table II shows the enrollment in public schools between the ages of 14 and 20, expressed as per cent of the estimated number of young people in the city who are 14 years old. For Camden this would read, "The number of pupils 14 years of age in the public schools is 50 per cent of the number of 14-year-olds in the city; * * * the number of 20-year-olds in school is but 0.25 per cent of the number of children 14 years old."

Table III represents, roughly, the percentage enrollment in elementary schools and high schools on the same basis as Table II. These percentages are shown graphically in diagram 1.

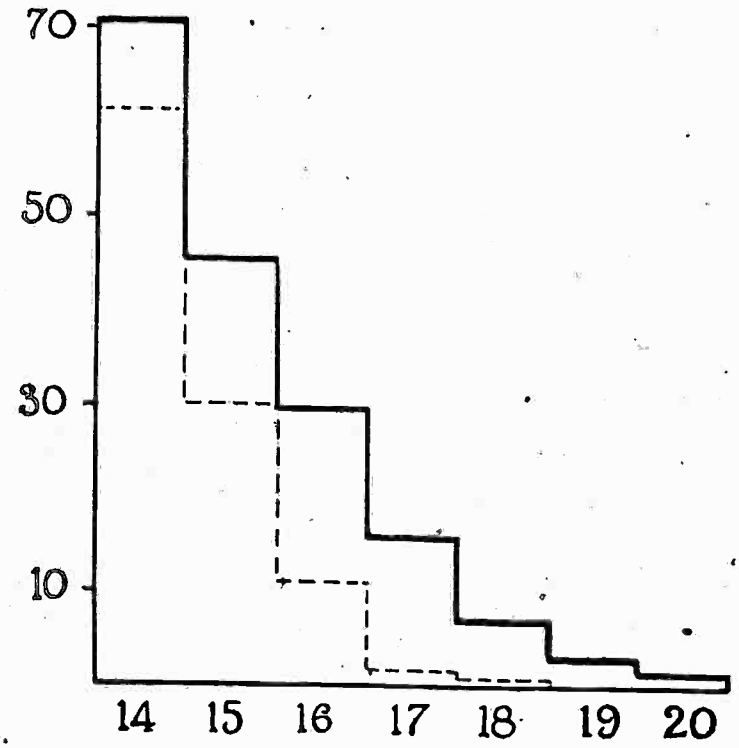

DIAGRAM 1.—Enrollment in public elementary and secondary schools expressed in percentage of number of children 14 years old. The full broken line represents graphically the median percentages of Table II. The dotted broken line marks the division between the elementary and secondary enrollment percentages, as given in Table III.

II. PRIVATE SCHOOLS.

The next step in the investigation is to determine, if possible, how many of the young people not in the public schools are enrolled in private and parochial schools. Here the difficulty of obtaining statistics is very great. Blanks were sent out to many private schools in the cities studied, but only two schools responded—the MacDuffie School, in Springfield, Mass., and the Balliol School, at Utica. The Emma Willard School, of Troy, N. Y., also sent the number of pupils by age for four years. The only other information in regard to the ages of the pupils in these schools is that found in the reports of the Springfield schools, which give the ages up to and including the fourteenth year. This is, however, a great help, for it gives the parochial schools distinct from other private schools, and, with the addition of the returns from the MacDuffie School, makes it possible to determine very nearly the actual distribution by age of the pupils in these two classes of schools in Springfield. It is much to be regretted that like statistics are not available for all the cities under consideration.

The reports of the United States Commissioner of Education give the estimated number in private and parochial schools for all these cities. For some of the cities estimates have not been made since 1900, and none of them are accurate. The number given for Springfield is the number under 15 years of age as given by the reports of the city superintendent. No doubt the estimates are too high in many cases also. Definite statistics are also given in regard to the various private high schools, academies, etc., for each school reporting, but these, of course, include only a small part of the total number of private schools. The reports of the State superintendents in the various States give data which are somewhat more accurate, but which in nearly all cases are, no doubt, too low. These are a great help in checking up and correcting the estimates given in the reports of the United States Commissioner of Education.

From the data given in the report of 1904 of the United States Commissioner of Education it is possible to estimate the ratio of the enrollment in private high schools, academies, etc., to that in public high schools for the United States as a whole and also for the five subdivisions. In view of the impossibility of obtaining definite statistics for the elementary private schools, the following plan was adopted: The statistics for the total number in private and parochial schools given in the 1904 report of the United States Commissioner of Education were taken as a basis. These were compared with the reports of the State superintendents and, where it seemed necessary, were raised. None of them were decreased. The number in Spring-

field was, of course, taken from the reports of the schools, the number above 14 in the parochial schools being estimated. It was found that in the Springfield private and parochial schools the number under 14 years constituted 83 per cent of the total enrollment, that above being 17 per cent. This number was used in determining the number above 14 in twelve of the sixteen cities. In the other four cities the proportion of those 14 and above was increased to correspond more nearly with the ratio of private to public secondary school pupils as given by the Commissioner of Education. In these cities the proportion was 25 per cent. The number thus found was distributed over the years 14 to 20 according to the distribution of the pupils of the Springfield private and parochial schools taken together. This distribution is shown in Table IV (p. 19), which shows the total number estimated as well as the number between 14 and 20. These estimates are for the year 1904.

Another method of determining the distribution was then used. Taking the per cent of private to public secondary school pupils given by the United States Commissioner for each of the five subdivisions of the United States, the number in the private secondary schools of the cities studied was estimated from the number known to be enrolled in the public high schools. This gives a much smaller number, and represents only the secondary pupils and not those in parochial schools or in other private elementary schools. The number thus found for each city was distributed according to the median distribution of the private schools at hand. This distribution is given below (Table VI), and shows the per cent of private to public secondary pupils, the estimated total number of private secondary pupils, and the distribution of these by ages. All the pupils in these secondary private schools were taken to be 14 or over.

For each of these distributions the ratio of the pupils at each age to the estimated total number of children 14 years old was calculated. The estimated number of children is the same as that used for the public schools. These ratios, expressed as per cents, are given below for each distribution (Tables V and VII).

The most striking difference between these two tables of percentages is seen in the percentages for 14 and 15 years. It is probable that those based on the Springfield distribution are somewhat exaggerated. It is certainly true that other distributions do not make the number 14 to 15 years old large enough. It seems best to combine the results of the two tables, giving two-thirds weight to the percentages based on the Springfield distribution and one-third to those based on the Commissioner's Report and the distribution in the private schools. The percentages resulting from thus weighting the two distributions are given in Table VIII (p. 20), and graphically represented in diagram 2 (p. 21).

It is not asserted that these figures accurately represent the number in private schools in the cities; but they do show fairly well the relative part taken by the private schools, on the whole, in the training of the young people between the ages of 14 and 20. The proportion of private school pupils is so small that the inaccuracy of the figures does not affect the general conclusions. It is also noteworthy that the proportionate part taken by the private schools is decreasing, in some States very markedly so.

It would seem from these figures that the private schools hold their pupils decidedly better than do the public schools, but the difference is probably not nearly so marked as these tables would indicate.

TABLE IV.—*Pupils of private and parochial schools, elementary and secondary, distributed according to the Springfield distribution.*

City.	Total enrollment, all ages.[a]	Between 14 and 20 years of age.						
		14.	15.	16.	17.	18.	19.	20.
1. Camden, N. J	1,000	53	38	29	21	17	10	2
2. Chester, Pa	500	26	19	14	11	9	6	1
3. Chicago, Ill	[b]50,000	2,618	1,912	1,436	1,062	850	510	111
4. Columbus, Ohio	3,938	206	150	113	84	67	40	9
5. Grand Rapids, Mich	4,450	233	170	128	95	76	45	10
6. Jersey City, N. J	6,965	365	266	200	148	119	71	15
7. Little Rock, Ark	[c]850	66	48	36	26	21	13	3
8. New Orleans, La	[c]8,000	616	450	338	250	200	120	26
9. Newton, Mass	600	32	23	17	13	10	6	1
10. Omaha, Nebr	2,500	131	96	72	53	42	25	6
11. Portland, Me	2,500	131	96	72	53	42	25	6
12. St. Louis, Mo	30,000	1,571	1,147	862	638	510	306	66
13. Spokane, Wash	750	57	42	31	23	19	11	2
14. Springfield, Mass	1,765	93	68	51	38	30	18	4
15. Utica, N. Y	3,102	162	118	89	66	53	32	7
16. York, Pa	[d]750	58	42	32	24	19	11	2

[a] Enrollment given by Commissioner of Education.
[b] Enrollment increased according to State report.
[c] Enrollment estimated from number of private secondary students as given by reports of State superintendents.
[d] Enrollment increased according to proportion in South Central States.

TABLE V.—*Enrollment in private and parochial schools (Springfield distribution), expressed in percentages of total number of children 14 years old.*

City.	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
1. Camden, N. J	4.0	2.8	2.2	1.5	1.2	0.8	0.2
2. Chester, Pa	4.2	3.1	2.3	1.8	1.5	0.8	0.2
3. Chicago, Ill	8.35	6.0	4.6	3.4	2.7	1.6	0.35
4. Columbus, Ohio	9.4	6.9	5.2	3.8	3.1	1.8	0.4
5. Grand Rapids, Mich	14.4	10.5	8.0	5.9	4.7	2.8	0.6
6. Jersey City, N. J	9.0	7.2	5.4	4.0	3.0	1.9	0.4
7. Little Rock, Ark	12.8	9.3	7.0	5.0	4.1	2.5	0.6
8. New Orleans, La	11.1	8.1	6.1	4.5	3.6	2.2	0.4
9. Newton, Mass	6.3	4.5	3.3	2.6	2.0	1.2	0.2
10. Omaha, Nebr	7.6	5.5	4.2	3.1	2.4	1.4	0.35
11. Portland, Me	18.3	13.4	10.0	7.4	5.9	3.5	0.84
12. St. Louis, Mo	14.7	10.7	8.1	6.0	4.8	2.9	0.6
13. Spokane, Wash	8.8	6.5	4.8	3.5	2.9	1.7	0.3
14. Springfield, Mass	9.7	7.2	5.3	3.9	3.1	1.9	0.4
15. Utica, N. Y	16.8	12.2	9.2	6.8	5.5	3.3	0.7
16. York, Pa	9.1	6.6	5.0	3.8	3.0	1.7	0.3
Medians	**9.3**	**7.0**	**5.3**	**3.9**	**3.1**	**1.9**	**0.4**

TABLE VI.—*Enrollment in private secondary schools, based on the enrollment in public high schools, as given in the Report of the Commissioner of Education, 1904.*

City.	Per cent of enrollment in private schools.	Total enrollment in private schools.	Distribution by age according to private schools						
			14.	15.	16.	17.	18.	19	20
1. Camden, N. J	24.4	91	13	14	16	16	16	12	4
2. Chester, Pa	24.4	92	13	14	16	17	16	12	4
3. Chicago, Ill	17.9	2,108	295	327	369	379	369	274	95
4. Columbus, Ohio	17.0	415	58	64	73	74	73	54	19
5. Grand Rapids, Mich	17.0	299	42	46	52	54	52	39	14
6. Jersey City, N. J	24.4	144	20	22	25	26	25	19	7
7. Little Rock, Ark	57.0	289	33	37	42	43	42	31	11
8. New Orleans, La	57.0	590	83	91	103	106	103	77	27
9. Newton, Mass	24.4	204	28	32	36	37	36	26	9
10. Omaha, Nebr	17.0	256	36	40	45	46	45	33	11
11. Portland, Me	24.4	201	28	32	35	36	35	26	9
12. St. Louis, Mo	17.0	549	77	85	96	99	96	71	25
13. Spokane, Wash	25.7	208	29	32	37	37	37	27	9
14. Springfield, Mass	24.4	256	36	40	45	46	45	33	11
15. Utica, N. Y	24.4	130	21	23	26	27	26	20	7
16. York, Pa	24.4	100	14	16	17	18	17	13	5

TABLE VII.—*Enrollment in private secondary schools, as given in the preceding table, expressed in percentages of total number of children 14 years old.*

City.	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
1. Camden, N. J	1.0	1.02	1.2	1.2	1.2	0.9	0.3
2. Chester, Pa	2.1	2.3	2.6	2.7	2.6	1.9	0.65
3. Chicago, Ill	0.9	1.1	1.2	1.2	1.2	0.9	0.3
4. Columbus, Ohio	2.6	2.9	3.3	3.4	3.3	2.5	0.9
5. Grand Rapids, Mich	2.6	2.8	3.2	3.3	3.2	2.4	0.9
6. Jersey City, N. J	0.5	0.6	0.7	0.7	0.7	0.5	0.2
7. Little Rock, Ark	4.8	5.4	6.1	6.3	6.1	4.5	1.6
8. New Orleans, La	1.5	1.6	1.9	1.9	1.9	1.4	0.5
9. Newton, Mass	5.5	6.3	7.1	7.3	7.1	5.2	1.8
10. Omaha, Nebr	2.1	2.3	2.6	2.7	2.6	1.9	0.6
11. Portland, Me	3.9	4.5	4.9	5.0	4.9	3.6	1.3
12. St. Louis, Mo	0.7	0.8	0.9	0.9	0.9	0.7	0.2
13. Spokane, Wash	4.5	4.9	5.7	5.7	5.7	4.2	1.4
14. Springfield, Mass	3.7	4.2	4.7	4.8	4.7	3.4	1.2
15. Utica, N. Y	2.2	2.4	2.7	2.8	2.7	2.1	0.7
16. York, Pa	2.2	2.5	2.7	2.8	2.7	2.0	0.8
Medians	2.2	2.5	2.7	2.8	2.7	2.1	0.8

TABLE VIII.—*Enrollment in private and parochial schools, elementary and secondary, expressed in percentages of total number of children 14 years old.*

[Combination of the Springfield distribution with a weight of 2, and that of the Commissioner of Education with a weight of 1.]

City.	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
1. Camden, N. J	3.0	2.2	1.9	1.4	1.2	0.8	0.2
2. Chester, Pa	3.5	2.8	2.4	2.1	1.9	1.2	0.3
3. Chicago, Ill	5.9	4.4	3.5	2.7	2.2	1.4	0.3
4. Columbus, Ohio	7.1	8.9	4.6	3.7	3.2	2.0	0.6
5. Grand Rapids, Mich	10.5	7.9	6.4	5.0	4.2	2.7	0.7
6. Jersey City, N. J	6.2	5.0	3.8	2.9	2.2	1.4	0.3
7. Little Rock, Ark	10.1	8.0	6.7	5.4	4.8	3.2	0.9
8. New Orleans, La	7.9	5.9	4.7	3.6	3.0	1.9	0.4
9. Newton, Mass	6.0	5.1	4.6	4.2	3.7	2.5	0.7
10. Omaha, Nebr	5.8	4.4	3.7	2.6	2.5	1.6	0.4
11. Portland, Me	13.5	10.4	8.3	6.6	5.6	3.5	1.0
12. St. Louis, Mo	10.0	7.4	5.7	4.3	3.5	2.2	0.5
13. Spokane, Wash	7.4	6.0	5.1	4.2	3.8	2.6	0.7
14. Springfield, Mass	7.7	6.2	5.1	4.2	3.6	2.4	0.7
15. Utica, N. Y	11.9	8.9	7.0	5.5	4.6	3.0	0.7
16. York, Pa	6.8	5.2	4.2	3.5	2.6	1.8	0.5
Medians	7.3	6.0	4.9	4.0	3.4	2.1	0.6

EXPLANATION OF TABLES IV TO VIII.

Table IV gives for certain cities the total enrollment in private and parochial schools as nearly as can be determined from the data at hand. It also shows the age distribution of pupils from 14 to 20 years according to that in Springfield.

Table V shows the same facts as Table IV, expressed as per cent of the total number of children 14 years old in each city.

Table VI shows the estimated enrollment in private secondary schools in the same cities, using as a basis the per cent which the enrollment in private secondary schools in each of the five census divisions of the United States bears to that of the public secondary schools, as given by the Commissioner of Education. This number is distributed over the ages 14 to 20, according to the distribution in the few private schools at hand.

Table VII expresses this distribution as per cent of the total number of 14-year-olds in the city.

Table VIII combines Tables V and VII, giving a weight of 2 to the former and of 1 to the latter.

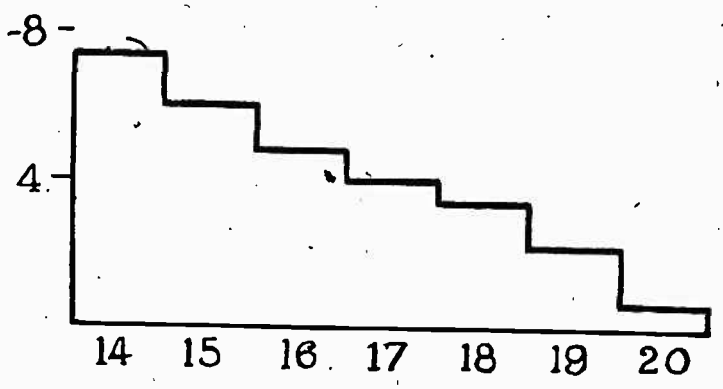

DIAGRAM 2.—Enrollment in private and parochial schools, elementary and secondary, expressed in percentages of total number of children 14 years old, as shown by the median percentages of Table VIII.

C. SUPPLEMENTARY AGENCIES.

1. PUBLIC EVENING SCHOOLS.

Something of the difficulty already alluded to was experienced in obtaining statistics of pupils by age for the evening schools. Three cities—Omaha, Camden, and St. Louis—give complete age statistics in their regular reports. Columbus gives them by the age groups 14 to 16, 16 to 21, 21 and over; and Chicago by the groups 12 to 15, 15 to 18, 18 to 21, etc.; so that fairly complete data were obtained from the reports of five cities.

Blanks were sent out to all of the thirty cities selected according to the plan already given and to twenty others. Only six cities responded, and of these three were among the cities studied—York, Utica, and Portland—the latter giving only the totals for the age group 14 to 20. Accurate data were obtained also from Jersey City through the courtesy of Superintendent Snyder, who gave the author access to the school records. Two cities—Spokane and Chester—re-

ported having no evening schools; so that accurate data were obtained from eleven out of the sixteen cities. In addition to this, data have been obtained from four other cities—Erie, Elmira, Newark, and Louisville—which have aided in the distribution. For the remaining cities only the total enrollment in evening schools is obtainable. This has been distributed according to the median distribution of the cities whose data have been given. In New Orleans the age at entrance is 16, and this has been taken into account in distributing the pupils by age. Before making the distribution for the ages 14 to 20 the proportionate number above 20 was taken out in each case.

The following table (Table IX, p. 23) shows the number of pupils at each age and the number 21 and over in the evening schools of the sixteen cities. It is clearly seen that in the evening schools, while there are many 21 and over, yet the great majority are under 21. In point of age of pupils now enrolled these are distinctively schools for young people. The table showing the per cent at each age of the total number between the ages of 14 and 20 is also given (Table X). The table of age distribution here given shows that the modal ages are 15 and 16, while there is a steady decrease above 16. This is seen not only in the medians, but also in the individual cities.

The proportionate number of pupils at each age from 14 to 20, based on the estimated total number of children 14 years old, was then found, as in the case of the public and private schools. In this table (Table XI and Diagram 3) the variability is nearly as striking as in the other cases studied. There is a great difference, not only in the per cents at each age, but also in the ability of the evening schools of certain cities to hold the pupils. Springfield has by far the most effective evening schools, as far as the percentage enrolled is concerned. Utica is also strong in this particular. New Orleans apparently does the least of the cities which maintain evening schools, and admits only at the age of 16. There is no general correspondence shown by these data between the effectiveness of public day schools and that of evening schools, as far as per cent of population enrolled is concerned, as may be seen by the following table.

In determining the rank of each city in enrollment in any class of schools, as shown in this table, the rank for each age from 14 to 20 is first determined, the city having the highest per cent at 14 having first rank, and so on; then these ranks for the several ages, 14 to 20, are added up. This gives the total rankings of the city. The city whose total ranking is numerically the least is placed first.

Table showing the rank of cities in the enrollment of pupils 14 to 20 years old in various schools.

Rank.	Public schools.	Private schools.	Evening schools.
1	Newton	Portland	Springfield.
2	Spokane	Grand Rapids	Utica.
3	Springfield	Spokane	Jersey City.
4	Grand Rapids	Springfield	Columbus.
5	Portland	Little Rock	Camden.
6	Chester	Newton	Chicago.
7	Little Rock	Utica	Newton.
8	Columbus	Columbus	St. Louis.
9	Omaha	Chester	Omaha.
10	Utica	Omaha	York.
11	Chicago	York	Grand Rapids.
12	York	St. Louis	Portland.
13	Jersey City	New Orleans	Little Rock.
14	Camden	Chicago	New Orleans.
15	St. Louis	Jersey City	Chester.
16	New Orleans	Camden	Spokane.

Two cities in the upper half in enrollment in public schools have no evening schools—Spokane and Chester. Only three cities are in the upper half of all three columns,—Springfield, Newton, and Columbus.

The most striking thing about the evening school percentages in Table XI is that they are so small. They show that the evening schools reach a comparatively small part of the young people who are not in other schools.

TABLE IX.—*Public evening school enrollment, partially classified by age.*

City.	Number of records.	Under 14.	Between 14 and 20 years of age.							21 and over.
			14.	15.	16.	17.	18.	19.	20.	
1. Camden, N. J	1	21	83	187	166	101	68	52	72	129
2. Chester, Pa.[a]										
3. Chicago, Ill	2	400	1,507	1,990	2,310	1,686	1,622	1,207	939	6,300
4. Columbus, Ohio	2	9	17	14	17	13	12	10	7	42
5. Grand Rapids, Mich	1	.....	44	53	49	35	29	23	19	63
6. Jersey City, N. J	1	5	318	517	542	339	301	210	50	160
7. Little Rock, Ark	2	.....	7	8	7	5	4	3	3	.....
8. New Orleans, La	1	.....	.....	.....	77	52	44	35	28	55
9. Newton, Mass	6	.....	32	37	33	25	21	16	12	41
10. Omaha, Nebr	8	4	64	67	63	43	37	26	21	148
11. Portland, Me	1	10	17	21	19	14	12	9	7	280
12. St. Louis, Mo	2	.....	830	719	585	358	283	282	196	548
13. Spokane, Wash.[a]										
14. Springfield, Mass	5	.....	120	241	298	270	242	227	142	510
15. Utica, N. Y	1	1	179	206	151	84	68	37	38	176
16. York, Pa	1	.....	30	35	29	14	12	13	5	14

[a] No evening schools.

TABLE X.—*Percentage distribution of pupils in public evening schools 14 to 20 years of age.*

City.	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
1. Camden, N. J	5.0	28.0	24.0	15.0	10.0	8.0	10.0
2. Chester, Pa.[a]							
3. Chicago, Ill	13.0	18.0	21.0	15.0	14.0	11.0	8.0
4. Columbus, Ohio	19.0	15.5	19.0	14.5	13.0	11.0	8.0
5. Grand Rapids, Mich	17.5	21.0	19.5	14.0	11.5	9.0	7.5
6. Jersey City, N. J	14.0	23.0	24.0	15.0	13.0	9.0	2.0
7. Little Rock, Ark	17.5	21.0	19.5	14.0	11.5	9.0	7.5
8. New Orleans, La			77.0	52.0	44.0	35.0	26.0
9. Newton, Mass	18.0	21.0	19.0	14.0	12.0	9.0	7.0
10. Omaha, Nebr	20.0	21.0	20.0	13.0	11.5	8.0	6.5
11. Portland, Me	17.0	21.5	19.5	14.0	12.0	9.0	7.0
12. St. Louis, Mo	25.0	22.0	18.0	11.0	9.0	9.0	6.0
13. Spokane, Wash.[a]							
14. Springfield, Mass	7.8	15.7	19.3	17.5	15.8	14.7	9.2
15. Utica, N. Y	23.0	27.0	20.0	11.0	9.0	5.0	5.0
16. York, Pa	22.0	25.0	21.0	10.0	9.0	9.0	4.0
Medians	17.5	21.0	19.5	14.0	11.5	9.0	7.5

[a] No evening schools.

TABLE XI.—*Enrollment in public evening schools at each age from 14 to 20 years, expressed in percentage of total number of children 14 years old.*

City.	Number of records.	Between 14 and 20 years of age.							Per cent of average attendance on total enrollment.
		14.	15.	16.	17.	18.	19.	20.	
1. Camden, N. J	1	2.4	13.7	11.7	7.4	5.0	3.8	5.3	
2. Chester, Pa.[a]									
3. Chicago, Ill	2	4.8	6.4	7.4	5.4	5.2	3.9	3.0	48
4. Columbus, Ohio	2	7.8	6.4	7.8	5.9	5.6	4.6	3.2	65
5. Grand Rapids, Mich	1	2.7	3.3	3.0	2.2	1.8	1.4	1.2	
6. Jersey City, N. J	1	8.6	14.0	14.7	9.2	8.2	5.7	1.5	30
7. Little Rock, Ark	2	1.4	1.6	1.4	1.0	0.8	0.65	0.6	
8. New Orleans, La	1	.0	.0	1.4	0.95	0.8	0.6	0.5	49
9. Newton, Mass	6	6.3	7.3	6.5	5.0	4.2	3.2	2.4	40
10. Omaha, Nebr	3	3.7	3.9	3.6	2.5	2.1	1.5	1.2	32
11. Portland, Me	1	2.4	2.9	2.6	2.0	1.7	1.3	1.0	45
12. St. Louis, Mo	2	7.8	6.7	5.5	3.3	2.7	2.6	1.8	48
13. Spokane, Wash.[a]									
14. Springfield, Mass	6	12.5	25.0	31.0	28.0	25.1	23.6	14.7	43
15. Utica, N. Y	1	18.5	21.2	15.7	8.7	7.0	8.9	4.0	86
16. York, Pa	1	4.7	5.5	4.6	2.2	1.9	2.0	0.8	
Medians		4.2	6.0	5.1	2.9	2.4	2.3	1.4	44

[a] No evening schools.

EXPLANATION OF TABLES IX TO XI.

Table IX gives the total enrollment in the evening schools of certain cities, the pupils between 14 and 20 being distributed by years of age.

Table X gives this distribution expressed as per cent of the total number of pupils in these schools from 14 to 20 years of age.

Table XI expresses the same distribution as per cent of the total number of children 14 years old in the different cities.

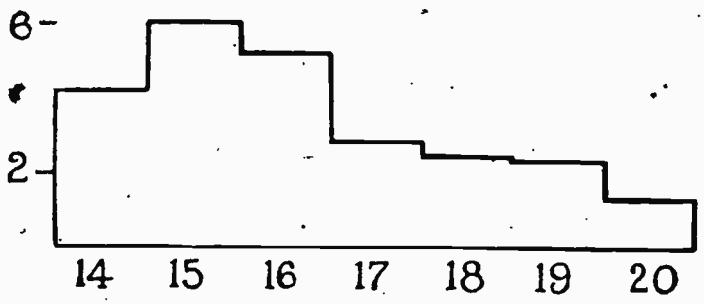

DIAGRAM 3.—Enrollment in public evening schools, expressed in percentage of total number of children 14 years old, as shown by the median percentages of Table XI.

II. YOUNG MEN'S CHRISTIAN ASSOCIATION CLASSES.

Another general agency that is attempting to reach working people is the Young Men's Christian Association. Very careful reports are made every year by each of its local secretaries to the educational committee. These include, among other points, the total enrollment of persons under instruction; enrollment by subjects, grouped under the following heads: (1) Elementary, (2) high school, (3) commercial, (4) political science, (5) industrial, (6) science, and (7) language and music. The number of teachers is also given and the salaries paid. Since 1904 the statistics for boys, including all 18 years old and younger, have been separate, so that it is possible to ascertain with a fair degree of accuracy the number of young people under 21 enrolled in these classes.

The original reports from all the associations were placed at the disposal of the author by Mr. George B. Hodge, the educational secretary, to whom he is indebted both for this courtesy and for many helpful suggestions.

A further effort was made to secure more accurate data in regard to the age, previous education, and present occupation of each pupil, and subjects pursued. To the educational directors of the associations in nearly 50 cities, including all the 16 cities named in the previous sections of this work, letters were sent, asking whether they would be willing to have their students fill out blanks calling for this information; 16 expressed their willingness to cooperate. To each of these were sent blanks like the following:

1. Name _____
2. Age _____
3. Studies being pursued _____
   Names of studies _____
   Hours per week _____
4. Present occupation _____
5. Wages—Underline the group within which your present WEEKLY wage comes:
   $5 to $8, $9 to $12, $13 to $16, $17 to _____
6. What day school last attended? _____
   Age at leaving _____ Grade at leaving _____

About 2,500 blanks were sent out. The response was not so general as had been hoped, only seven cities returning blanks filled out—Newark, N. J., Seattle, Wash., Omaha, Nebr., Birmingham, Ala., Camden, N. J., Springfield, Mass., and Hartford, Conn. The educational directors seemed to experience difficulty in persuading the men to fill them out, their objection being that it was an attempt to inquire into their private affairs.

From these data it is, of course, not possible to draw any definite conclusions. However, the blanks do show the age distribution in a fairly satisfactory manner. The median age as shown by these is 21, about what we would expect from the other statistics. The only adequate data, then, are found in the reports to the educational committee, where the only division by age is that into the groups 18 and younger and over 18. Taking this as a basis, and calling the enrollment of the 19- and 20-year-olds 20 per cent of the total enrollment, the total number 14 to 20 was distributed, as nearly as possible, according to the mean distribution of the pupils reported by the seven associations. This is at best a very rough method, but it certainly does ample justice to the enrollment between the ages mentioned. The number in any case is so small that it will not greatly affect the result. The total enrollment taken was in every case the largest of those reported for the years 1904, 1905, and 1906. The following table (Table XII) shows the distribution of the pupils 14 to 20 years old in each of the 16 cities.

The next table (Table XIII) shows the percentage at each age, based on the estimated total number of children 14 years old. The percentage in all cases is very small, never reaching 2, and in only three cities does it reach 1. Omaha and New Orleans show the largest per cent, with Spokane not far behind. When the medians are considered, we see how small a proportion of those at each age are reached by means of this agency.

In comparing this enrollment quantitatively with that for evening schools, we must keep in mind that the great majority of the association pupils attend only two classes a week of one hour each, and thus represent a total of two to four hours of work per week as compared with six to eight hours in the evening schools. The quantitative value of the Young Men's Christian Association enrollment should therefore be reduced one-half to put it on an equal footing with that of the evening schools.

TABLE XII.—*Enrollment in Young Men's Christian Association evening classes, partially classified by age.*

City.	Between 14 and 20 years of age.							Over 20.
	14.	15.	16.	17.	18.	19.	20.	
1. Camden, N. J.	3	4	9	11	11	12	10	83
2. Chester, Pa.			1	1	1	2	1	17
3. Chicago, Ill.	42	45	119	145	146	146	144	914
4. Columbus, Ohio.	5	5	14	17	17	18	17	135
5. Grand Rapids, Mich.	3	3	9	11	11	11	10	148
6. Jersey City, N. J.	2	2	5	6	6	7	6	78
7. Little Rock, Ark.			1	1	1	2	1	16
8. New Orleans, La.	18	19	51	63	63	68	62	37
9. Newton, Mass.	1	1	2	2	2	3	2	29
10. Omaha, Nebr.	8	9	24	29	29	29	29	149
11. Portland, Me.	1	1	2	2	2	2	2	27
12. St. Louis, Mo.	12	13	35	48	48	43	42	687
13. Spokane, Wash.	2	2	5	6	6	7	6	76
14. Springfield, Mass.	2	2	5	6	6	7	6	91
15. Utica, N. Y.			1	2	2	2	1	10
16. York, Pa.			1	2	2	2	2	26

TABLE XIII.—*Enrollment in Young Men's Christian Association evening classes at each year of age from 14 to 20, expressed in percentages of total number of children 14 years of age.*

City.	Between 14 and 20 years of age.							Per cent of average attendance based on enrollment.
	14.	15.	16.	17.	18.	19.	20.	
1. Camden, N. J.	0.25	0.3	0.7	0.85	0.85	0.9	0.8	.....
2. Chester, Pa.	.....	.....	0.2	0.2	0.2	0.33	0.2	61
3. Chicago, Ill.	0.14	0.15	0.38	0.46	0.46	0.47	0.46	65
4. Columbus, Ohio.	0.28	0.28	0.84	0.78	0.78	0.82	0.78	53
5. Grand Rapids, Mich.	0.19	0.19	0.58	0.68	0.68	0.68	0.62	56
6. Jersey City, N. J.	0.05	0.05	0.14	0.16	0.16	0.19	0.16	.....
7. Little Rock, Ark.	.....	.....	0.15	0.15	0.15	0.29	0.15	.....
8. New Orleans, La.	0.83	0.35	0.93	1.2	1.2	1.2	1.18	46
9. Newton, Mass.	0.20	0.20	0.40	0.40	0.40	0.60	0.40	.....
10. Omaha, Nebr.	0.46	0.52	1.4	1.7	1.7	1.7	1.7	56
11. Portland, Me.	0.14	0.14	0.28	0.28	0.28	0.28	0.28	.....
12. St. Louis, Mo.	0.11	0.12	0.33	0.4	0.4	0.4	0.39	58
13. Spokane, Wash.	0.31	0.31	0.77	0.93	0.93	1.1	0.93	56
14. Springfield, Mass.	0.21	0.21	0.52	0.62	0.62	0.78	0.62	.....
15. Utica, N. Y.	.....	.....	0.11	0.21	0.21	0.21	0.11	.....
16. York, Pa.	.....	.....	0.16	0.32	0.32	0.32	0.32	.....
Medians	0.17	0.17	0.39	0.44	0.44	0.54	0.43	.....

III. CORRESPONDENCE SCHOOLS.

During the past ten years instruction by correspondence has had a remarkable development. It is impossible to ascertain the exact number of students enrolled in these schools, or to determine for any one of them the ages of the young people reached. An effort was made to this end in the case of the largest of them, the International Schools of Correspondence, of Scranton, Pa. The authorities there were unable to furnish the data. They definitely state, moreover, that it is impossible for them to tell in any given year what proportion of their enrolled students are actually at work—that is, are students in reality; so that figures given for this school can not be employed as

an exact statement of numbers enrolled, and especially as representing the actual amount of instruction given.

A like statement is not true of some of these schools, notably of the Chicago University Correspondence Schools, but even there no definite data are available. From all the statistics given it seems probable that the actual number between the ages of 14 and 20 taking correspondence courses in the cities under consideration is not much larger than the number enrolled in the Young Men's Christian Association classes. Since this latter number is so small proportionately, we can, for purposes of calculation, disregard the pupils in the schools of correspondence.

D. NORMAL SCHOOLS, UNIVERSITIES AND COLLEGES, AND PROFESSIONAL SCHOOLS.

The number of young people in the cities under consideration between the ages of 14 and 20 attending normal schools, colleges, and universities is not definitely known. A very rough estimate has been made for the country as a whole, based on the statistics given in the Report of the United States Commissioner of Education for 1904, Vol. I, page XI. The total number there given as attending the three types of institutions named is approximately as follows: Normal schools, 63,000; universities and colleges, 128,000; professional schools, 61,000. These include both public and private institutions.

The age distribution of students in universities and colleges is pretty definitely known; that of students in normal schools and professional schools is not so well known. Using the known data as a guide, the probable age distribution of the total number attending the institutions named has been determined as well as possible. Taking the total number of persons in the United States 14 years old according to the census of 1900 as a basis, the per cent of young people at each age in these institutions would be approximately: 17 years, 0.5; 18 years, 1.5; 19 years, 2.0; 20 years, 3.0.

To be exact, there should also be a correction for the pupils attending business colleges and commercial schools. It is impossible to secure as reliable data for these as for the higher institutions. The number of pupils enrolled in institutions of this class, according to the Report of the United States Commissioner of Education for 1904 (p. 2109), is 138,363. Although this exceeds the enrollment in universities and colleges by 10,000, the attendance is by no means comparable, since many of the courses given are only three or four months in length, and the actual time spent in the school is often very little. Nor do we have any accurate basis for distribution of these pupils by age. It probably is somewhat like that of students in normal schools and colleges, but we can not be sure of it. Altogether, it

seems best not to make any correction for these pupils, remembering, however, that a considerable number of young people are in attendance for a longer or shorter time in business colleges and commercial schools.

E. RÉSUMÉ OF SCHOOL ATTENDANCE.

The general situation in the selected cities is shown by the combined percentages of the schools of different types, to which is added the general correction for higher institutions. These represent the probable maximum enrollment. The combined percentages of school enrollment, based upon the total number of children 14 years of age, are:

	Per cent.
14 years	83.77
15 years	57.65
16 years	39.64
17 years	23.84
18 years	14.74
19 years	9.99
20 years	6.93

This is shown also in the accompanying graphic representation (Diagram 4), which shows the per cent at each age in the schools of different types.

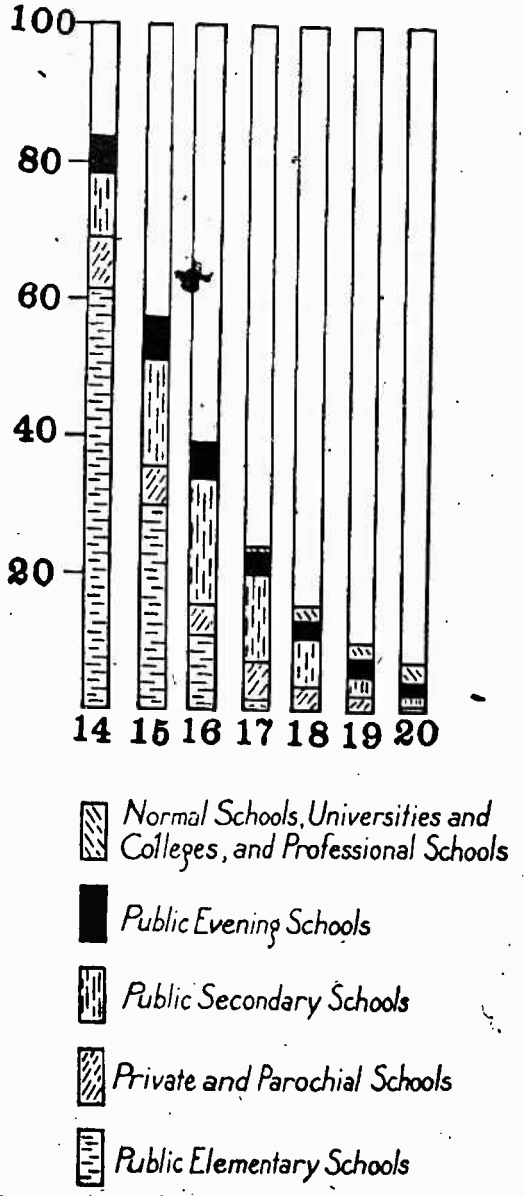

DIAGRAM 4.—Probable maximum enrollment in different types of school at each age from 14 to 20 years, expressed as per cent of the estimated total number of young people 14 years old. It is a combination of Diagrams 1, 2, and 3, with the general correction for "higher institutions."

According to these statistics it appears that, taking the total number of young people between the ages of 14 and 20, 66.21 per cent are not in schools of any kind. At the different ages this appears as follows: At 14 years old, 16.23 per cent are not in school; at 15 years, 42.35 per cent; at 16, 60.36 per cent; at 17, 76.16 per cent; at 18, 85.26 per cent; at 19, 90.01 per cent, and at 20, 93.07 per cent. So far, then, we are safe in making the assertion that over half of the young people are not in schools of any kind. Whatever training they are receiving is that obtained in the actual work in which they are engaged.

F. OCCUPATIONS OF YOUNG PEOPLE NOT IN SCHOOL.

In considering the question of the need of continuation schools and the kind of instruction which should be given in them, it is very important to understand the conditions under which boys and girls are working after leaving school, in what kinds of occupation they are engaged, and what they are actually receiving in the way of general training.

It is entirely conceivable that, under certain conditions, many young people would receive better training for their actual life work and for citizenship outside the school than within its walls. For example, the boy who works with his father on the farm, doing the many kinds of work required of farmers, may be receiving more than he could in school, both in the way of development of manly character and of training for active intelligent citizenship. The same might be said of the girl who helps her mother in caring for the house and in cooking. It might even be true of the apprentice, if the old system of apprenticeship still prevailed, where each apprentice learned all the parts of a trade under the guidance of a competent master who was interested in him.

But do such conditions prevail in our cities? Are they present in the cities selected? It would be very helpful if we could ascertain this in regard to the young people in these cities. But no reliable data exist on this point. It could only be definitely determined by a careful study of the situation in each place.

In the absence of definite data it is impossible to draw any valid conclusions. The following figures, based on returns published in the reports of the Twelfth Census, are, however, suggestive: In all of the 16 cities studied, of the total number of males between 10 and 15 years old engaged in "gainful occupations," 80 per cent are in the two classes, "Trade and transportation" and "Manufacturing and mechanical pursuits," and the same proportion exists in the age group 16 to 24. Of the total number of females between the ages of 10 and 15 engaged in "gainful occupations," 70 per cent are in the two

groups mentioned, while in the age group 16 to 24 there are 60 per cent. This means very little when we are considering the actual conditions under which these people are working.

Much more helpful are the data obtained by the Massachusetts commission on industrial and technical education, whose report was published in 1906. Their investigations were carefully conducted, and, while necessarily limited to the State of Massachusetts, the conclusions reached are well worthy of thoughtful consideration. The report is too well known to make it necessary to describe it in detail. Only a few of the conclusions which bear directly upon this subject are here given.

In summing up the investigations in regard to occupations, Dr. Susan M. Kingsbury says (p. 31):

> Thirty-three per cent of the children of this State who begin work between 14 and 16 are employed in unskilled industries and 65 per cent in low-grade industries; thus a little less than 2 per cent are in high-grade industries. This statement in itself, however, does not reveal the exact situation, even as far as these selected groups are concerned, since carpet, woolen, and knitting mills claim the greater part of the children in low-grade skilled industries. These industries are not as desirable as many of the other low-grade industries, such as jewelry, pamphlet binding, machine operating, and work with toys, in which children under 16 are not received.
>
> Should we classify all of the mills with the unskilled[a] industries, we should find 69 per cent of the children in these undesirable industries, and but 26 per cent in the low-grade skilled industries.

By "unskilled industries" Doctor Kingsbury means "Those in which the work is the repetition of a single or simple operation, easily learned in a short time, and in which the knowledge of one part is not essential to that of another." In most of these a very low grade of ability is required, and they lead to nothing higher. Training in this or that particular kind of unskilled labor does not help the children in learning any other kind of labor. It is in such industries as these, and in the almost equally undesirable low-grade skilled industries, that most of the children from the ages of 14 to 16, and even older, are found. The condition of those who do not leave school until a little later, when they are 17 or 18 years old, seems to be much better, a much larger proportion of these being in high-grade skilled industries.

In regard to the value to the young worker of these years, Doctor Kingsbury says (pp. 87–88):

> Of what educational value are the years in these occupations? The mill affords a more rapid advance in wages for a year or two, but the maximum is attained in a few years. It holds the boy or girl, once having entered, and does not permit of development or advancement to a desirable occupation unless accompanied by training.

[a] A typographical error in the report makes this read "low-grade skilled."

The low-class factories, such as rubber, confectionery, and paper afford the girl less wages and less opportunity, although they are perhaps more desirable in influence; but they never lead to anything which means development or growth in the industry itself, nor do they serve as a training for any other industry, while they certainly afford no preparation for home duties.

Department stores and errand positions do not afford a living wage, and offer no opportunity for advancement to one. They are distinctly bad in influence, since the younger employee is so shifting, resulting in instability of character. When the child has reached 16 or 17, he or she must begin again at the bottom.

Sixty-eight per cent of the children who commence work between 14 and 16 are subjected to the evil influences of these unskilled industries or are in mills. They have wasted the years as far as industrial development is concerned, and in many cases they have forfeited the chance ever to secure it, because of lack of education.

As would be expected, the wages received are very low. The medians of the average weekly wage in the unskilled industries range from $3.39 for the 14-year-olds to about $6.75 for the 20-year-olds. In the low-grade skilled industries they range from $3.90 for the 14-year-olds to $8.65 for the 20-year-olds. The highest average weekly wage for the unskilled industries ranges from $4.05 at 14 years old to $10.11 at 20 years old, while the lowest for the 14-year-olds is $2.69 and for the 20-year-olds it is $6. The highest average wage in the low-grade skilled industries is that paid to the 20-year-olds, $10.30, the lowest at this age being $6.81; at 14 years of age the highest is $4.86 and the lowest is $2.80.[a]

The hope, then, for the boy or girl who starts in at unskilled labor is not bright, either in the way of increase in pay or in prospect of higher grade of work.

It may be asserted that all this may be true for Massachusetts, but does not apply to other States or to cities not in Massachusetts. Although we have no definite facts to prove or disprove this, it does not seem likely that such is the case. The average grade of intelligence in Massachusetts is certainly not below the average of the country, and the compulsory attendance laws are better enforced there than in the majority of the States. Statistics collected in regard to withdrawal from school show that, on the whole, city schools in Massachusetts hold their pupils much better than the average of the city schools in other States. Again, in regard to the employment of children, the enforcement of the laws against child labor is certainly more rigid than in most States. While, owing to the fact that the number of mills and factories in Massachusetts is above the average, some conditions are met with in that State which are peculiar to manufacturing communities, yet it can be pretty clearly shown that the conditions in Massachusetts are fairly representative of those in the cities under investigation.

[a] Report of the Massachusetts Commission on Industrial and Technical Education, pp. 113–115.

Such being the case, it is clear that under present-day conditions young people between the ages of 14 and 18, at least, do not find in the work in which they are engaged opportunities for training along lines which are helpful to them, either in their mental development or in the way of preparation for other occupations which are more remunerative or more desirable. Nor is the case of the favored few who are fortunate enough to be admitted as apprentices much better in this respect. In the first place they must be at least 16 or 18 years old. Then, too, the apprenticeship system as it is to-day is very different from that in the beginning of the nineteenth century, or even later. Very rarely does the boy learn all the operations of the trade under the eye of a competent master. He usually learns only one thing, one particular operation, and even this has to be picked up by him in a haphazard manner. There is little attempt at careful instruction. The old apprenticeship system, designed as it was for stationary conditions, has been forced to give way, and as yet we have no adequate substitute for it.

In the face of such conditions as these, what can be done for the young men and women no longer in school who are at work, for the most part, in those industries which offer no chance for advancement nor any training worthy of the name? In the next section will be shown some of the methods adopted by Germany and England to relieve similar conditions in those countries.

III. AGENCIES FOR SUPPLEMENTARY EDUCATION IN OTHER COUNTRIES.

A. GERMAN CONTINUATION SCHOOLS (FORTBILDUNGSSCHULEN).

Germany has a very thoroughly organized system of supplementary education for working people in her Fortbildungsschulen, or continuation schools. These ramify into all trades, and put within the reach of young workers the opportunity for further education and training. For a complete treatment of these schools, the reader is referred to the publications mentioned in the selected bibliography at the close of this bulletin. It will suffice for the present purpose to give a brief outline of the system.

In Germany, every kind of school has a definite place in the educational system. The stratification is, however, along vertical lines as well as horizontal. At the age of 10, if not before, the question of the future calling of the child must, very largely, be decided. If his parents are people of means, he then is taken out of the Volksschule and placed in some kind of secondary school, such as a Gymnasium,

a Realschule, or some technical school of secondary rank. In many cases he never has been in the Volksschule, but in a "Vorschule" of one of the secondary schools. In the great majority of cases, however, through lack of means or other reasons, the parent is compelled to deny his child secondary and higher education with their many advantages, and he remains in the Volksschule until the completion of its course, which occurs at about the fourteenth year. At this age most of the boys and girls go out into actual work. For these young people there has been established a system of continuation schools, attendance on which is in most of the States of Germany compulsory for at least two years. These are for the special purpose of continuing the instruction of the young workers after they are forced to enter the shops to earn a livelihood.

It must be borne in mind that these continuation schools are inseparably bound up with other agencies for industrial education and constitute only one phase of this work. As will be seen, there are all phases of gradation between the trade school and the continuation school, each supplementing the others. To obtain a complete understanding of the continuation school we must study the whole system of industrial education, as well as the economic and industrial conditions which have rendered such schools an essential feature of the development of the country. This would, however, lead too far afield for the present purpose, and we will confine our attention as far as possible to that phase of the general subject represented by the continuation schools.

History.—In their original form these continuation schools were Sunday schools for teaching religious truths to youth preparing for confirmation. They were first established by the bishop of Samland in 1569.[a] Gradually these developed, and under Frederick II secular subjects were introduced and the schoolmaster became the teacher. The general subjects were reading and writing. In 1765, according to the general regulations of Catholic schools of Silesia, all persons under 20 years of age who had left school were required to attend Sunday instruction in Christianity, and after this for two hours to attend lessons in reading and writing.[b] In some places a general education was given, while in others, where the need for it was more marked, various kinds of industrial education were introduced. Up to 1850 these schools had a remarkable growth, but from 1850 to 1870 they passed through a period of decline, due to several causes, among which may be mentioned the general feeling of unrest—of aversion

[a] Education Department (of England): Special Reports on Educational Subjects, Vol. I, p. 482.

[b] Technical Instruction. Special Report of the United States Commissioner of Education, 1869, p. 169.

to authority. Another reason was undoubtedly that primary education had been made compulsory. The people thought this was sufficient and would not support other schools. The war of 1870, however, showed Germany the value of universal education, and especially of industrial education.[a] She was quick to see her opportunity and at once began the development of a system of industrial education which has no parallel in the world. It has been a large, if not the chief, factor in the rapid development of her commerce and industry, which has enabled her to place herself in such a commanding position among the nations of the world.

In this system of industrial education the continuation schools have a very important place and have proven so well adapted to the needs of the working classes that they have been specialized for particular trades and have multiplied rapidly. They are now, without doubt, the most important factor in the education and training of the working people.

Administration and control.—The imperial order on the regulations of industry (Gewerbeordnung) of June 1, 1891, is a very remarkable decree, in that it is one of the very few imperial decrees on educational matters, these being left largely to the individual States. Portions of this decree are here given:

> SEC. 120. The masters in any branch of industry are bound hereby, in the case of their workers under the age of 18 who attend an institution recognized by the authorities of their district or their State as a continuation school, to allow them the time fixed as necessary for such institution by the authorities * * *. Through the ordinance of a district council or any wider communal body, attendance at a continuation school may be made obligatory for all male workers under the age of 18. In the same way, proper regulations may be made to secure the execution of such an ordinance. In particular, regulations may be passed to insure regular attendance and to determine the duties of parents or employers in this respect, and notices may be issued by which organization in the continuation school and a proper relation of the scholars to it may be assured. From the compulsory attendance based on such an ordinance are exempted only those persons who attend another continuation or technical school, provided that the instruction given in such school be recognized by the higher authorities as a complete equivalent for that given in the general continuation school (allgemeine Fortbildungsschule) * * *.
>
> SEC. 150. A breach of section 120 of this law is punishable by a fine of not exceeding 20 marks, or, in case of nonpayment of such fine, by imprisonment for a term not exceeding three days.[b]

The power to establish such schools is left entirely with the States or smaller divisions, as is the matter of compulsory attendance and general control; but when such schools are established and the work-

[a] Education Department (of England): Special Reports on Educational Subjects, Vol. I, p. 483.

[b] Oscar Pache: Handbuch des deutschen Fortbildungsschulwesens, Vol. I, p. 40.

ers attend, their employers or parents are compelled by an imperial decree to allow them time for such attendance.

Prussia extends the imperial plan of control to divisions of the State—i. e., allows them to decide whether attendance shall be compulsory or not—while all other large States exercise complete or partial control. This extends principally to compulsory attendance, general curricula, and certain minimum requirements. The local authorities are left largely free to establish schools and to adapt them to the special needs of the workers.

The department of the State which has control of these schools varies according as they are considered part of the school system, or as institutions for the promotion of trade and commerce. In Prussia and Hesse the departments of trade and commerce and that of the interior have charge; in Bavaria, the department of education; while in Saxony, Baden, and Wurttemberg they are divided between the department of the interior and that of education. The rural schools are usually under the department of agriculture or that of the interior. The local authorities which are in control also vary. In Saxony, Baden, and Hesse the industrial school inspector has control; in Bavaria, the "county" school inspector, and in Prussia, the industrial school councils and directors have charge.

The original plan was that the establishment and maintenance should devolve upon private organizations and local governments, but there has been a marked tendency toward centralizing all authority in State governments. This has resulted in part from the State aid, which has increased continually and which has naturally brought with it a demand for a voice in the conduct of the schools, and in part from the effort to eliminate the waste resulting from having different systems in one State. Most of the States are now committed to the policy of supporting continuation and industrial schools, and hence have had to provide governmental machinery for their management.[a]

Compulsory attendance.—According to the imperial order of 1891, this is left entirely to the State or local authorities. All the larger States except Prussia have compulsory attendance laws, and the obligation for regular attendance is placed on parents and employers. In Prussia there is local option, but considerable effort has been made to secure the enactment of a compulsory law. Discretionary power is given to the minister of trade and commerce "to see that proper measures are taken." This has had a decided influence upon the introduction of local compulsory measures.[b] Many communities have already made attendance compulsory. In 1903, out of 1,169

[a] Report of U. S. Commissioner of Labor, 1902, p. 874.
[b] Meyer: Industrial Education in Germany, p. 41.

industrial continuation schools in Prussia, 997 had compulsory attendance.[a] Among those cities where attendance is now compulsory are Magdeburg, Posen, Düsseldorf, and Breslau. In Berlin it is still voluntary, but evidences are strong that at no very distant day it will become compulsory there.[b] In some Prussian cities certain classes are exempt from attendance, such as apprentices of apothecaries, fishermen, lawyers, etc. Many guilds and unions make such attendance compulsory for apprentices during all or part of their apprenticeship.

Other features.—The founders of these schools are often communes, guilds, industrial associations, and individuals. State schools are founded where the means of the locality are insufficient and where a national need exists, e. g., building trades and industrial art schools.[c]

The States give varying amounts, according to the needs of the communities, the community generally furnishing the quarters, heat, and light. The sources of support for the industrial schools in Berlin in 1896 and 1897 were: State, 86,089 marks; city, 329,363 marks; guilds, 9,115 marks; societies, 12,520 marks; total, 437,087 marks. Most schools charge a small tuition fee—1 to 10 marks per year. In some places, as Duisburg and Düsseldorf, the employers are compelled to pay the tuition fees in advance, but may deduct these from the wages.[d] In Breslau and some other cities instruction is free to apprentices, while others pay tuition fees.

The great majority of teachers are from the elementary schools. In many of the larger cities skilled technical instructors are secured, and preference is given to experienced, practical men. In most States no special training is necessary. In Prussia the teachers of industrial continuation schools take courses of from four to six weeks in drawing and in commercial branches. The expense is paid by the State, by communities, or by societies. There are a few schools giving special training established by the State, unions, and by societies.[e]

There is no general unified system of supervision. The industrial school inspector, where there is one, supervises the work, and the teachers of higher trade and technical schools supervise particular subjects of instruction.[f]

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[a] W. Lexis: A General View of the History and Organization of Public Education in the German Empire, p. 178.

[b] Meyer: Industrial Education in Germany, p. 417.

[c] Report of U. S. Commissioner of Labor, 1902, p. 872.

[d] Gillert: Organisation einiger Fortbildungsschulen deutscher Grossstädte, pp. 6, 9.

[e] Lexis: Das Unterrichtswesen im deutschen Reich, Vol. III, p. 322.

[f] Report of U. S. Commissioner of Labor, 1902, p. 875.

German continuation schools, although they differ very markedly in character, may be divided into three main classes: (1) General continuation schools (allgemeine Fortbildungsschulen); (2) industrial continuation schools (gewerbliche Fortbildungsschulen); and (3) commercial continuation schools (kaufmännische Fortbildungsschulen).[a]

General continuation schools.—The purpose of these schools is general culture. They attempt to fix and widen the knowledge gained in the elementary schools and show its application to practical life; to establish a certain minimum of culture throughout the nation; to widen knowledge with a view of fitting the pupil for his function as a working member of society and a citizen endowed with the franchise.[b] These schools are quite uniformly distributed throughout the Empire, but receive their greatest support in rural communities and the smaller cities. They are the prevailing form in Saxony, Wurttemberg, Baden, and Hesse, and in about one-half of the smaller States, while Prussia and Bavaria are the great strongholds of the industrial continuation schools. The present tendency is distinctly away from these "repetition" schools and toward various kinds of industrial and commercial schools. This has resulted in part from increased specialization of trades and from the sharp competition which has made an increased demand on the part of pupils for specialized instruction; in part from a realization that the general continuation schools are inadequate to fulfill this purpose. This became apparent as soon as the revival of trade became general. Two principles were soon recognized: (1) That the code as laid down should be varied to suit the needs of the locality and (2) that there should be concentration of the subjects chosen around the special interests of the pupils, to be effected by bringing the pupils into the closest possible relations with the trades from which they were drawn.[c] The fact that the general continuation schools did not attain their object is shown in the words of Director Scharf, of the Magdeburg schools. He says: "The pupil will not obtain the general knowledge by himself from these schools, for he is concerned only with that which will give him practical efficiency, and he will thus take from the course only these factors and will neglect the general element. But the instruction can not bear directly on his

[a] Report of U. S. Commissioner of Labor, 1902, p. 895.

[b] Ware: Educational Foundations of Trade and Industry, p. 122.

[c] F. H. Dale: Continuation Schools in Saxony. In Education Department (England), Special Reports on Educational Subjects, Vol. I, p. 500.

practical life unless he is in a class where only one trade or a group of allied trades is represented."[a] The change has been gradual, but very marked.

Industrial continuation schools.—The general purpose of these is to develop industrial efficiency. The instruction bears directly upon the trade of the pupil, and aims to better fit him for his present work and to prepare him for higher positions, or, in some cases, for work in higher technical institutions. It is to be noted that in these schools the aim is not skill, as no shop work is attempted, but only to give increased efficiency to the worker by teaching him the relation of the process to the whole industry, and the place the latter has in the activities of the community. These industrial continuation schools and the trade schools (Fachschulen) are inseparably connected with each other, and really form part of one system. In general, however, the trade school is a school where instruction is given during the day to those not at work, and where shop work or practical work is given, in addition to the technical instruction. In the industrial continuation school instruction is given mostly on evenings and Sundays to working pupils and is entirely technical. This school is midway between the general continuation school and the trade school. In many trade schools there are, in addition to the day classes, evening and Sunday classes for apprentices and others. Trade schools are often closely associated with industrial continuation schools and classed as such.

The industrial continuation school with special trade classes often leads directly to the special trade school. This is seen in Berlin, where the trade school has perhaps reached its fullest development. Doctor Bertram says, "The technical schools for each trade have been gradually, each in its own fashion, evolved from the continuation schools or founded on existing models."[b] To show how this has been done, we can not do better than to trace the development of two such schools—the "Gewerbesaal" and the carpenter school. "The former aims at providing instruction in theory and drawing for apprentices and journeymen employed in machine construction, in artistic smithies, and by art locksmiths. The latter undertakes the training of young carpenters, who again are divided into builders, carpenters, and upholsterers of various branches. For both trades drawing classes have become a necessity. At the continuation schools

[a] E. Gillert: Organisation einiger Fortbildungsschulen deutscher Grossstädte, p. 14.

[b] Doctor Bertram: Continuation Schools in Berlin. Special Reports on Educational Subjects, Vol. IX, p. 457.

these classes had been intrusted to expert teachers and were attended by a large number of pupils. But the courses lacked direction."[a] Accordingly, these were separated from the general system in 1892 and 1893. At first the general plan was the same as in the continuation schools, but soon day classes were formed and the instruction took on the character of a trade school. At present they are entirely distinct. This is only one of the many instances where such a transition has occurred.

Industrial continuation schools are of various kinds, but may be classified roughly as follows: (1) General industrial continuation schools, where there are no special classes for particular trades; (2) trade industrial continuation schools, where there are classes for each trade or group of trades; and (3) agricultural schools, where the instruction is general and bears directly on agriculture. In many schools where the trades have separate classes they have an "allgemeine" (or general) class, which includes the pupils whose trades do not readily adapt themselves to special training, such as day laborers, errand boys, and all the unskilled laborers.

Trade continuation schools and industrial continuation schools with trade classes vary from schools of the general type to those in which there are separate classes for each trade. As is the case with other continuation schools, they are directly adapted to the needs of the particular locality in which they are placed, the emphasis on particular trades varying with the interests of the locality. This adjustable character of the schools accounts for much of the success with which they have been attended and for their remarkable growth. Of the general structure of these and the subjects pursued we will speak later.

Commercial continuation schools.—These are practically the same in general plan as the industrial continuation schools.

Organization of continuation schools.—The course of continuation schools varies from two to four years for boys, and from one to three years for girls. Schools in which the course is four years in length divide it into three consecutive grades and one preparatory class (Vorklasse). In others the divisions are dependent on the number of years. The number and division of classes varies greatly, as might be expected. In the general and rural continuation schools all of the same grade are taught together.

In many advanced industrial continuation schools, e. g., those at Magdeburg and Leipzig, each grade except the preparatory is divided according to (*a*) year of apprenticeship, (*b*) trade, and (*c*) maturity or ability. Thus there are parallel classes in each grade and ascending grades in each trade. This may be more clearly seen by taking

[a] Doctor Bertram: Continuation Schools in Berlin. Special Reports on Educational Subjects, Vol. IX, p. 458.

the organization of one of the Magdeburg schools. In the three years above the preparatory grade there are 33 classes, arranged as follows:[a]

Grade.	According to maturity or ability.	According to trade and year of apprenticeship.
Under class	I	6
Do	II	3
Do	III	2
Middle class	I	7
Do	II	3
Do	III	2
Upper class	I	6
Do	II	2
Do	III	2

This means that each year of the course is divided into three grades, according to the ability of the pupils. The lowest grade of the "under class" is subdivided into six classes, according to the trade or year of apprenticeship of the pupils; the second grade into three, and the third into two classes, and so on up through the "upper class." By this plan pupils of the same interests are grouped together, and also those of the same degree of intelligence or maturity. In Berlin there is an almost unlimited number of trade classes, each branch having ascending grades.

Instruction time.—The number of hours per week can in no case throughout the Empire be less than two, and in rural continuation schools having a term of only six months not less than four. In the general continuation schools the usual number is about two, but it is often more. In the industrial continuation schools it is usually from four to six and even more. The time of instruction is for the most part on week-day evenings for two or three hours, on Sundays two to four hours, mornings or afternoons, and in Bavaria on the weekly half holidays. When the instruction is on Sunday it is not allowed to interfere with divine worship. The time of instruction is one of the most unsatisfactory features regarding these schools. For some time the teachers and supervisors of continuation schools have realized that instruction in the evening is very unsatisfactory. "The student comes to his work tired from the day's labor and in a state of physical and mental lethargy."[b] Intellectual application on Sundays or in the evening leads to overexertion and is apt to arouse a feeling of repulsion in the learner toward the study which robs him of well-earned repose. It has been also suggested that "Sunday study of industrial subjects interferes with church work and leads to

[a] Gillert: Organisation einiger Fortbildungsschulen deutscher Grossstädte, p. 17.

[b] Meyer: Industrial Education in Germany, p. 87.

a neglect of religion and higher moral thinking."[a] A movement has been on foot for some time to transfer the periods of instruction, so far as possible, to the daytime, but it has met with only partial success.[b] Some of the main hindrances in the way of such change are the difficulty of obtaining room for assemblage and teachers for instruction. "The teachers are in many cases either engaged in industrial occupations or to teach in the public schools. The expense of hiring teachers for instruction in these schools alone would be entirely too heavy, so that the usual arrangement is the only one that has been found practicable if a proper standard of instruction is to be maintained. In many cases, also, these schools meet in rooms which are used during the day for some business or for other instruction."[c] Thus the expense of providing separate rooms would in many cases be prohibitive. "In the merchants' schools the difficulty is not so pronounced, as the children of merchants can more easily leave the office during the day hours than skilled hands can leave their machines in the factories and workshops."[d]

But in spite of these difficulties many places are making the change. The best results are attained in Baden, where, in 1899, 21 out of 46 industrial schools offered instruction in the daytime. In Zittau the classes are divided by trades, and, by arrangement with employers, convenient times are provided for special classes, e. g., locksmiths on Monday from 1 to 4 p. m., butchers on Tuesday from 2 to 5 p. m., etc. In Düsseldorf much the same arrangement is tried. In Leipzig each trade class is divided into two sections according to year of apprenticeship. Each section attends on a different day, and in this way the shops are not entirely emptied any day. The employers in many cases seem to be very willing to cooperate to this end.[e]

The term in rural continuation schools extends over the winter months, or from five to six months. In the majority of other schools it occupies the entire year.

Curriculum.—In the general continuation schools the subjects required are German and arithmetic, while the optional ones are geometry, mensuration (Formenlehre), drawing, and "Realien" (general knowledge of history, geography, and science). In the rural or agricultural schools, the most common subjects are German, agriculture, "Realien," and arithmetic. Other subjects given are agricultural bookkeeping, drawing, mensuration and land surveying, zoology, breeding of animals, physics, etc. All instruction is based

[a] Meyer: Industrial Education in Germany, p. 22. [b] Ibid., p. 87. [c] Ibid., p. 28. [d] Ibid., p. 38.
[e] Special Reports on Educational Subjects, Vol. I, pp. 493, 494.

upon agriculture; that is the point of departure; thus the principle of the dominant interest of the pupil is fully recognized. In the industrial and commercial continuation schools the only subjects common to all are German and arithmetic. The others are extremely varied, depending on the locality, trade, and advancement of the pupil. However, they all have this in common, that the material is taken from some form of industry, and instruction based on this.

There are three subjects which are of special interest, namely, those called Berufskunde, Handelskunde, and Heimatkunde. The last is found only in Leipzig. These are best understood by referring to the subjects included under each in the special curricula given below.

Berufskunde seems to include a general knowledge of or information concerning a trade or trades, Handelskunde a general knowledge of commercial affairs, and Heimatkunde a sort of home government, history, and geography combined. The instruction in all varies to meet the needs of the community, and on this account probably ministers to definite local needs much better, so far as it goes, than any other form of German education, with the possible exception of the trade schools. To show the detailed character of the instruction given, some of the subjects included are here given. The detailed curricula of the subjects Berufskunde and Handelskunde are taken from the curricula of the Magdeburg schools, which are very highly organized, that of the Heimatkunde from Leipzig.

In the Magdeburg schools the organization is about the same as that given above, the trade divisions (Berufsklassen) being divided into a preparatory division, where the pupils are not separated according to trade, and three ascending divisions. These are each divided into (1) one-trade classes (Fachgewerbliche); (2) trade group classes (Berufsgruppen) and unskilled laborers (Angehörige ungelernter Berufe), such as servants, errand boys, etc. Each of these is again subdivided according to mental maturity.

The trade classes are in two divisions—one with drawing and the other without. In the classes with drawing the division of the time per week is, arithmetic 2 hours, German 2 hours, drawing 2 hours, including trade bookkeeping in the last school year for one hour weekly. The curriculum is devised and perfected for the individual vocations. The instruction in German includes the Berufskunde, which in Saxony is a separate branch of instruction. The character of the Berufskunde in the different trade classes is shown very well by that of the bakers' classes, in which the following chapters are treated, each of which has many divisions:

First year: (1) Apprentices; (2) journeymen; (3) masters; (4) baking rooms; (5) raw material.

Second year: (1) Ingredients; (2) fuel; (3) labor-saving machinery; (4) bread making.

Third year: (1) White baking; (2) fancy baking; (3) grain and flour commerce; (4) ways and means of traffic; (5) history of baking; (6) present guild system.

These are all very voluminous, as is shown by the topics treated in the chapter on "raw material," as follows: The bread grains, wheat, rye, etc.; preservation of grain; purpose of preservation; granary; handling of grain in the loft; selection and examination of grain; object of milling; grinding of grain; means of milling; kinds of mills; qualities of meals; meal tests; examination of gluten and ergot of rye; wheat-flour tests for beauty and quality; adulteration of meal; meal mixtures; names of meal; chemical composition and preservation of same; hurtful animals in meal. In addition to this, other articles are read and papers are written every two weeks.[a]

In arithmetic there is no systematic development through the consecutive grades. Specific groups of problems coming up in the course of the trade instruction are taken up and solved in the order of appearance in the chapters of the Berufskunde, as can be seen in the subjects taken up in the first year of the baker's classes: (1) Problems concerning the apprentice; (2) concerning the journeymen; (3) concerning the master; (4) concerning baking rooms; (5) concerning raw material.

In the commercial classes the Handelskunde is of the same general character as the Berufskunde in the trade classes. It is a "commentary" on the methods and life of commerce, treats of the transmission of merchandise, of correspondence.

In the Handelskunde the following chapters are treated:

First year: (1) Apprentice; (2) assistant employer; (3) direct handling of merchandise.

Second year: (1) Indirect handling of merchandise; (2) transmission of money, bills of exchange; (3) credit.

Third year: (1) Conduct of banks; (2) exchange; (3) commercial parties; (4) commercial companies; (5) means for furtherance of commerce; (6) history and retrospect.

To show the compass of each of these, the divisions of the chapter on "direct handling of merchandise" are given: (1) Concerning applications and proposals (including post cards, business papers, specimens of wares, letters, rates of postage, etc.); (2) information about orders and commissions (letters, special-delivery letters, registered parcels, telegrams, telephones, etc.); (3) execution of orders (bills, accounts, weight and merchandise, discounts, receipts of delivery, etc.); (4) cash payment, money sent through the post-office, kinds of money, etc.; (5) duns and withdrawal of balance, etc.[b]

In Leipzig the organization is very similar to that in Magdeburg. A single Berufskunde forms the center of instruction. The substance of the topics treated gives teaching material for German, arithmetic, geometry, and drawing. The Berufskunde aims to make the pupil acquainted with the technique of the special trade which he finally enters. It discusses the simple technique of the business, its

[a] Gilbert: Organisation einiger Fortbildungsschulen deutscher Grossstädte, pp. 15, 16.

[b] Ibid., pp. 18, 19.

institutions and progress; legal and moral place of apprentices, journeymen, and masters; brings the spirit of the special trade to the pupil's understanding. The general education of the pupil is enlarged by the historical, geographical, and chemical references in this branch of instruction.

In the classes for unskilled laborers, or what are often called the general continuation schools, the Heimatkunde takes the place of the Berufskunde of the trade and the Handelskunde of the commercial schools. This is in addition to the instruction in German, arithmetic, and bookkeeping.

The course consists of two years and treats the following subjects:

First year: (1) Schools, (2) churches, (3) town hall, (4) streets, (5) promenades and public places of Leipzig.

Second year: (1) Leipzig commercial houses, (2) art and industrial institutions, (3) railroads, (4) environs of Leipzig.

Each of these chapters is very complete and detailed, and leads to a history and description of each particular portion of the city and country.[a]

The reading in the first year is taken entirely from the chapters of the Heimatkunde, but in the second year takes on a more literary character, when, among other things, the trilogy of Wallenstein is studied.

There are other special branches of instruction that are of interest which can only be mentioned here. In Dresden there is a branch called Realunterricht, in which a general study of the laws and statutes is combined with elementary political economy of a practical nature, aiming to make the young person understand his life problem rightly.

In the continuation schools for girls, which are not so common as those for boys, appropriate subjects are taken up, such as cooking, sewing, etc., in addition to reading, arithmetic, and drawing, which are given in all schools.

In the Empire as a whole the greatest emphasis, outside of German and arithmetic, is placed upon drawing. This includes free-hand and geometrical drawing and projection work, sketching, and special drawing relative to separate trades.

Statements in regard to the extent of influence of these continuation schools have been made by different authorities, but they are mostly of a very general character. It is necessary in considering any particular type of educational work to state not only its quality, but how many persons are reached. In Volume V of Pache's Handbuch des deutschen Fortbildungsschulwesens, pages 238 and 239, the total attendance at continuation schools of different types

[a] Gillert: Organisation einiger Fortbildungsschulen deutscher Grossstädte, p. 37.

is given for each of the divisions of the Empire, for Berlin, and for the divisions of Prussia. The figures for the Empire, for Prussia, and for Berlin are here given:

TABLE XIV.—*German continuation schools.*

[Statistics for 1900.]

	General (Allgemeine).	Trade and industrial (Gewerbe und gewerbliche).	Trade schools (Gewerbliche Fachschulen).	Commercial schools (Handelsschulen).	Agricultural schools (Landwirtschaftliche schulen).	Schools for girls.		Total.
						General (Allgemeine).	Trade (Fachschulen).	
German Empire	187,942	369,524	46,003	38,117	41,532	80,663	28,956	692,737
Prussia	5,000	145,672	8,625	17,029	23,831	4,011	10,392	214,560
Berlin	5,000	20,314	1,089	2,089	379	3,409	8,859	36,039

These figures include some pupils whom we would not consider continuation-school pupils. It is not possible in the statistics to separate all of the lower trade school pupils from those in the continuation schools proper, for many are in the same school. Accordingly, the figures are somewhat too high. On page 240 of the same book there is given for each of the divisions of the Empire the number of pupils in the Fortbildungsschulen per 1,000 inhabitants. Some of the principal States are here given:

Prussia	6.7
Bavaria	8.9
Hamburg	14.0
Bremen	19.0
Lübeck	19.0
Saxe Weimer	22.0
Saxony	28.5
Hesse	34.3
Baden	35.25
Wurttemberg	50.0
Berlin	21.5
German Empire	11.9

It is seen by this that Prussia is considerably below the average of the Empire in the proportion of pupils in continuation schools, while Wurttemberg is considerably above any other State. Berlin is also above the average, but whether above the average of the larger cities can not be told. These figures include, of course, the same schools as the statistics already given, and should be somewhat lower for the Fortbildungsschulen proper.

An effort has been made to secure accurate quantitative data for a

study of the comparative influence of the elementary, intermediate, and higher schools and the Fortbildungsschulen on the young people between the ages of 14 and 20. This has met with only partial success. There seem to be very few statistics in regard to the ages of pupils in any of these schools. The data obtained include only Prussia, and take no account of trade and technical schools other than those included in the statistics for Fortbildungsschulen, but deal only with the four types of school mentioned. In the tables which follow (Tables XV and XVI) the statistics for the intermediate schools and the higher girls' schools have been combined with those for the higher schools for boys. The data for the higher schools were obtained from the Centralblatt, volume 19, those for the Fortbildungsschulen from Oskar Pache's Handbuch des deutschen Fortbildungsschulwesens, volume 6, while those for the Volksschulen have been taken from Preussische Statistik for 1903 and the Statistische Nachrichten über das Unterrichtswesen, 1904. In the latter is also given the population for Prussia between the ages of 6 and 14. From this gross number has been computed the estimated population at 13, following the distribution as found in England and the United States, which very closely follows data which are also at hand for the population of Berlin by ages from 6 to 14.

The number of children 13 years old and over in the public and private elementary schools is estimated. The only data found for the elementary schools in Prussia are the total number of pupils 14 years old and over, which is given in Preussische Statistik, 1903, page 9. In the Statistisches Jahrbuch der Stadt Berlin, page 360, the ages of pupils in all schools is given through the years 13 and 14, and the total number 15 and over. Taking these as a basis, the number 14 years old and over in the elementary schools of Prussia has been distributed over the age period 14 to 17. In the Centralblatt the number of pupils in each class of the boys' higher schools is given and the total number in all the intermediate and higher girls' schools. These have been distributed according to the age statistics for Berlin given in the Statistisches Jahrbuch. As this also gives the ages of all the pupils in these schools through the fourteenth year and for the Gymnasium, Realgymnasium, and Oberrealschulen up to the twentieth year, the distribution may be considered to be fairly accurate.

The only data by age for the continuation schools are those given by Doctor Kuypers in his report on the Fortbildungsschulen in

Düsseldorf.[a] Here he gives the pupils in the "voluntary" division by the age groups 14 to 15, 16 to 17, 18, 19, 20 to 24, 25 to 29, and over 30. In the absence of more complete data these were taken as a basis for the distribution of the pupils in the Fortbildungsschulen in Prussia. While the numbers may not be correct for any one age, they show, on the whole, the extent of influence of these schools on the young people between the ages of 14 and 20.

It is a well-known fact that in Germany practically all young people up to the end of the thirteenth year are enrolled and in attendance at school. According to official figures, less than 2 per cent of the total number of children between the ages of 6 and 14 are not in school, and only 0.01 per cent illegally kept away from school.[b] The Volksschule has naturally very little influence on the education of the young after the beginning of the fourteenth year. After this time the different educational agencies are the intermediate and higher schools, the various trade and technical schools, and the Fortbildungsschulen. This estimate of the educational opportunities for the young from the ages of 14 to 20 is, by its very character, incomplete, as it does not include the trade and technical schools. No fair comparison can be made between particular parts of two educational systems; they must be viewed as complete wholes in their relationship to the life and activities of the people. The following study aims only to show in a rough manner the relative place which each of the three types of school has in the education of young people in Prussia. The estimate made shows that about 7.4 per cent of the young people 13 years old are in elementary schools at 14 years. (Table XV.) The intermediate and higher schools do not play a very important part, quantitatively, in the education of the young, varying from 8.1 per cent at 14 years to one-fifth of 1 per cent at 20 years old.

The data for the Fortbildungsschulen (Table XVI) include not only the continuation schools proper, but also the Handelsschulen and the Gewerbe Fachschulen, which are considered parts of the continuation school system. Many of these schools have evening and Sunday classes, and it is impossible to separate them from the general continuation system. Accordingly the figures are somewhat too high. The relative number of pupils in these schools as compared with the whole can be seen by reference to Table XIV.

It is hardly fair to take Prussia as an example of the influence of the Fortbildungsschulen for the German Empire, because of the fact that that State has no general compulsory law, and, in consequence,

[a] Dr. Franz Kuypers: Bericht über die Entwickelung der städtischen Fortbildungsschule, 1904, p. 41.

[b] Lexis: Public Education in the German Empire, p. 95.

the attendance is smaller than in the other large States; but no definite data could be obtained for any other German State or for the Empire as a whole. Prussia has 6.7 pupils in the Fortbildungsschulen to every 1,000 inhabitants, while the German Empire has 11.9.

Comparative tables have also been computed for Berlin, where there are 21.5 pupils per 1,000 inhabitants, and roughly for Wurttemberg, with 50 per 1,000.

In Prussia the per cent of young people reached by these schools is, on the whole, much the same as that of the evening schools in certain cities of the United States, which is shown on page 24. A comparison of the two shows that the Prussian schools have a greater proportionate attendance between the ages of 14 and 17; from 18 to 20 the American evening schools in the cities studied reach a larger proportionate number. If the data for the United States should include the whole country, and not cities of over 30,000 inhabitants only, the proportion would of course be very much less. In the case of Berlin the proportion is very striking, being over 4½ times that for Prussia as a whole. The figures for Wurttemberg, where these schools have their greatest development, would seem to show that a larger proportion of young people attend these schools there than are in attendance at the public schools in the cities of this country.

In making comparisons with England the fact must be borne in mind that in Germany industrial education is largely in day classes, and would not appear to any great extent in this estimate, while in England it is mostly in the evening and is reckoned in with the evening schools. In England the proportionate number between 14 and 20 is about twice that for Prussia, but less than half that for Berlin.

All these continuation schools, varying widely as they do in method, in character, and in plan, have as their object the training of young workers, after they have left school, in the direction of increased efficiency as citizens. There is no attempt to teach skill, nor even to teach a specific trade, but the effort is made to give to each pupil a full and complete technical knowledge of the trade in which he is engaged, and a realization of its place and function in the activities of the community. Flexible as they are in method and in kind and amount of instruction given, and largely under local control, they are admirably adapted to the needs of the working people. Little wonder is it that, in spite of adverse circumstances of evening and Sunday hours, they have grown in popularity and are recognized by the authorities as of the greatest importance, not only in the elevation of the workingman, but in the advancement of trade and commerce.

TABLE XV.—*Estimated number of pupils in Prussian schools at each year of age from 13 to 20, in 1901.*

	Between 13 and 20 years of age.							
	13.	14.	15.	16.	17.	18.	19.	20.
Public and private intermediate, girls' higher and boys' secondary schools	67,283	59,491	29,036	24,650	19,421	12,037	3,417	1,811
Per cent of estimated population 13 years old	9.2	8.1	4.0	3.4	2.7	1.7	0.5	0.2
Elementary schools	650,415	54,117	1,614	457	81			
Per cent of estimated population 13 years old	88.8	7.4	0.22	0.06	0.01			

TABLE XVI.—*Age distribution of pupils in German Forthildungsschulen, 1900.*

	Between 14 and 20 years of age.							21 and over (per cent of whole).
	14.	15.	16.	17.	18.	19.	20.	
Distribution taken as a basis (pupils between 14 and 20)...per cent.	25	24	21.25	16.25	8.0	3.25	2.25	2.00
Number of pupils distributed by ages:								
Prussia	52,377	50,282	44,520	34,046	16,761	6,809	4,714	5,062
Berlin	8,797	8,445	7,178	5,718	2,815	1,144	792	850
Per cent of estimated population 13 years old:								
Prussia	7.2	7.0	6.1	4.6	2.3	0.9	0.65	0.7
Berlin	33.4	32.1	28.4	21.7	10.7	4.4	3.0	
Wurttemberg (rough estimate)	76.3	73.3	64.8	19.6	24.4	9.9	6.9	

EXPLANATION OF TABLES.

Table XV gives the number of pupils at each age between 13 and 20 in Prussian elementary schools, and in public and private intermediate, girls' higher, and boys' secondary schools grouped together. This is also expressed as per cent of the estimated population 13 years old, in the same way as is done for the schools in the United States in Table II, p. 16.

Table XVI gives the distribution of pupils in the Forthildungsschulen of Prussia and of Berlin, with the per cent at each age on the estimated population 13 years old. A rough estimate is also given for Wurttemberg for comparison.

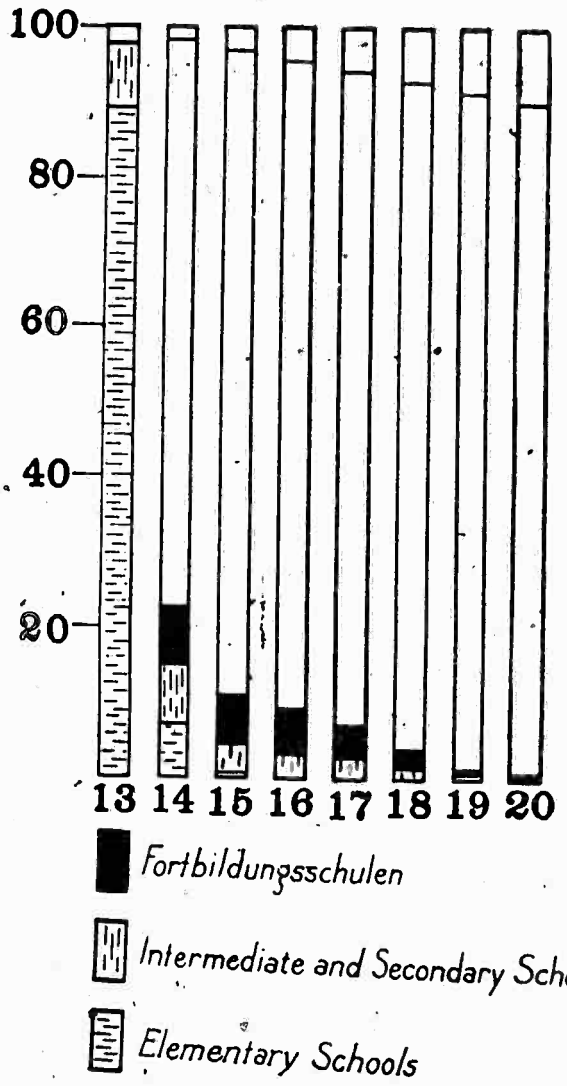

DIAGRAM 5.—Enrollment in Prussian schoools between the ages of 13 and 20, the pupils at each age being expressed as per cent of estimated number of children 13 years old in Prussia. This would read, "The number of pupils 13 years old in the elementary schools of Prussia is 88.8 per cent of the total number of 13-year-olds; those in the intermediate and secondary schools at 13 years old are 9.2 per cent of the total number of 13-year-olds; at 14 years old the number in elementary schools is 7.4 per cent of the total number of 13-year-olds, and the number in the intermediate and secondary schools is 8.1 per cent of the number of 13-year-olds. The number of 14-year-olds in the Fortbildungsschulen is 7.2 per cent of the total number of 13-year-olds in Prussia." The exact per cents can be seen by reference to Tables XV and XVI. The lines at the top of the columns show the elimination by death. Thus the distance between these lines and the base represents the total number living at each age.

B. EVENING CONTINUATION SCHOOLS IN ENGLAND.

It is not to be expected that England would have as unified a system of continuation schools as Germany. Her general educational system has been in such an unorganized condition that this would be impossible. Nor does she have a system of trade and technical education in any way comparable with that of Germany. It is just because her educational system has not been fully organized, and because she has lacked a complete system of trade education, that her evening continuation schools have come to hold such an important place.

England had so long held undisputed supremacy in industrial affairs and commerce that she thought her place secure. She did practically nothing for the education of her working people. Germany had already learned the value of general education. She saw that if she ever hoped to reach the place in industry and commerce that she desired, she must depend on education and trained workmen.[a] Accordingly she set about this in her usual systematic and thorough way, and started her splendid system of trade and technical education, of which the continuation schools, as we have seen, are a very important part. Each State had its unified, centralized educational system upon which to build. As a result, England soon found that her industrial supremacy was threatened and her prestige in commerce largely taken away. It was not long before she recognized the reason for Germany's rapid progress, and herself undertook to remedy her inadequate provision for the education and industrial training of her working people. She had no unified, centralized system of education upon which she could build. The evening schools were the schools which were nearest to the people and most readily responsive to their needs. As a result, the greater part of technical and industrial education in England is confined to these evening schools.

The term "continuation school," as now employed by English educational authorities, is usually confined to the lowest grade of evening school, but it is used here with its previous meaning, and includes all of the evening classes.

History.—The history of the development of continuation schools in England is closely connected with the history of the guilds, the apprenticeship system, and the laws for the relief of the poor. The early education of the working classes was almost entirely of an industrial character—at least that part which was given outside the home. Previous to the sixteenth century, the poor received whatever education and training they had from two sources: (1) The monasteries, in connection with which was offered the most elementary

[a] F. H. Dale; Continuation Schools in Saxony. Special Reports on Educational Subjects, Vol. I, pp. 482–483.

kind of education, and (2) the guilds, which provided money for the apprenticeship of poor boys. This apprenticeship included practical training and very elementary education connected with it. The income from the lands which they had acquired from time to time by purchase and gift gave to the monasteries and guilds the means of providing this education.

By the acts of Henry VIII, 1536, and Edward VI, 1547, the monasteries and free chapels were suppressed and all land belonging to them was given to the King. With these went the lands of the colleges, except those of Oxford and Cambridge, and all of the lands of the guilds, except those in London.

By these acts nearly all of the provision for the education of the working classes was taken away.

During the reign of Elizabeth the laws of apprenticeship and the laws for the relief of the poor placed the responsibility for the support and education of the poor largely on the people who had property. In the case of apprentices the master was to be responsible for the keep and training of his apprentices. Funds were raised by taxation to place poor children out to apprenticeship.

Up to the Reformation, therefore, practically all the education for the working classes was given in connection with apprenticeship, and of course was largely industrial, with only enough reading, writing, and arithmetic to enable the boy or girl to perform the ordinary duties of life. In fact, up to 1870 the idea of affording an opportunity for well-instructed youth to continue and broaden their education was not even conceived. The whole effort was to make up the deficiencies in the education of the working classes. Moreover, it was largely philanthropic.

After the Reformation education fell into the hands of the laity to a much greater degree than before, and more interest was taken in such work. Merchants and traders took a very active interest in the founding of schools for apprentices. Other efforts were directed toward the alleviation of the condition of the children of the poorer classes. Among these was a school founded in 1698 by the Society for the Promotion of Christian Knowledge. This society emphasized industrial work, and recommended that some form of manual training be employed in its schools on alternate days.[a] In 1701 a thoroughly successful school of this kind was opened in Westminster. This society also issued a circular recommending masters and employers to appoint some hours in the evenings of certain days of the week to teach such grown persons to read as had neglected study.

All of these efforts lacked unity, and it was not until the factory act of 1802 that the education of apprentices was made the subject of

[a] G. C. T. Bartley: Industrial Schools for the People, 1871, p. 326.

legislative provision.[a] This was entitled "An act for the preservation of the health and morals of apprentices and others employed in cotton and other mills and factories." Among other things, the act provided that all apprentices in cotton and woolen mills and factories during the first four years of apprenticeship be taught reading, writing, and arithmetic, or one of them, upon every working day during the hours of work by a teacher provided and paid by the employer.[b] Religious instruction was also given on Sunday. Thus the responsibility for this instruction was definitely placed on the employer. In 1806 a private evening school for boys and girls who had to work during the day was opened at Bristol by the Benevolent Evening School Society.[b] The instruction afforded in this school was gratuitous, and only for sons and daughters of the laboring poor. The subjects taught were reading, writing, and arithmetic. Then for nearly forty years little was done in developing this kind of educational work; but in 1839 Bishop Hinds laid especial emphasis on the importance of evening schools, and recommended that instruction in them be limited to those under 16 years of age.

After 1830 another agency was largely instrumental in establishing and extending evening continuation work, namely, the science and art department. This was the second great department directly concerned with education which offered grants of public money to those managers, teachers, and students who fulfilled the conditions it laid down.[c] It grew out of the action of the committee of trade, now the board of trade, through whose efforts a normal school of design was established in 1836 and an appropriation of £1,500 made for that purpose. In 1852 the arrangements were remodeled and a department of practical art was established. A science division was added the following year, when the title of department of science and art was first bestowed. In 1856 this establishment was removed from the board of trade to the new education department under the lord president of the council. This department has enjoyed greater freedom than the education department in the establishment of schools, in the subjects taught, and in general control. The education department was finally limited to England and Wales, while the science and art department long continued to extend its grants to Scotland and even to Ireland. It has been more progressive and has placed less restriction upon the schools under its control. The instruction has naturally had an industrial trend, but it has sanctioned every subject taught in schools, with the exception of the classics.

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[a] J. E. G. de Montmorency: Progress of Education in England, 1904, p. 68.

[b] Bartley's Journal of Education, p. 44.

[c] Graham Balfour: Educational Systems of Great Britain and Ireland, p. 154.

In 1851 the education department first began to give grants to elementary evening schools, and in 1855 the first capitation grants were made to them. Payments were also made to teachers in these schools, but until 1861 teachers in day schools were forbidden to teach in night schools. The revised code of 1861 withdrew aid to teachers, but abolished the restriction on day school teachers. Capitation grants were made on average attendance and payments were made for results of examinations in reading, writing, and arithmetic. During this time and until 1893 schools received grants from both the education department and from the department of science and art. The result of the restrictions of the education department was to make these schools rely more and more on the department of science and art.[a]

The attendance at evening schools increased up to the year 1870. In that year the act relative to evening schools set no limit on the age of students nor was the work compulsory. The instruction given was almost entirely limited to elementary work, in that grants were given only for such work. Work of a more advanced character was, nevertheless, demanded by the students and given. Boards of education were not specifically empowered to conduct evening schools, but the times when schools should be in session were not defined, and hence the boards were left free to do as they pleased. The next year the grants were definitely limited to persons not over 18 years nor under 12 years of age.[b] This resulted in a decrease in the number in attendance. In 1876 the upper limit was raised to 21 years. In 1882 no grants were given except to those between the ages of 14 and 21.

The restriction of instruction to elementary subjects greatly decreased the usefulness of these schools and resulted in a decreased attendance. In 1888 the commissioners of elementary education recommended that the evening school system be thoroughly revised; that a special curriculum and a special schedule of standards and subjects be allowed, suitable to the need of the locality, and that local managers be encouraged to submit such schedules to the department for approval; that the provision in the code requiring all evening school pupils to pass examinations in reading, writing, and arithmetic as a condition of taking additional subjects be suspended and no superior age limit be imposed.[c]

In the act of 1890 it was definitely stated that the principal part of the instruction need not be elementary. This resulted in a very rapid

[a] Balfour: Educational Systems of Great Britain and Ireland, pp. 40–43.

[b] Minutes of the School Board of London. Vol. I, p. 89.

[c] M. E. Sadler and J. W. Edwards: Public Elementary Education in England and Wales, 1870–1895. In Education Department (England) Special Reports on Educational Subjects, Vol. I, p. 54.

development from elementary to advanced work. Shop instruction and special industrial subjects were introduced and became popular. Thus these schools more and more grew to be secondary in character. The public had refused to provide for such training in the public day schools, and it was inevitable that the evening schools, responsive as they always were to the needs of the people, should take on the character of secondary schools for the masses.

A further impetus was given in 1893, when a new code for evening continuation schools was published. The following were stated as the aims of these schools:

1. To offer a wide choice of subjects adapted to the needs of all.
2. To give freedom to managers in the organization of the schools.
3. To render the course concise and yet complete in essential details, and to make it possible for the school to take advantage of the grants offered by the board.[a]

The main changes introduced were: (1) Attendance of persons over 21 was recognized; (2) no scholar was compelled to take the elementary subjects; (3) duplicate grants by the education department and the department of science and art were avoided; (4) grants were based on work of the schools as a whole, and not on that of individual scholars; (5) grants were based, not on attendance, but on the aggregate number of hours of attendance; (6) examinations were to be without warning instead of on fixed days. Elementary instruction was continued for those who needed it.[b]

In 1900 the Cockerton judgment declared it illegal for school boards to apply the Parliamentary grant for other than elementary subjects or for pupils above 14. While this decision deprived the evening schools of the grant for elementary education, it had nothing to do with the grants from the science and art department. The action would have seriously crippled the work but that by the acts of 1901 and 1902 provision was made for continuing evening schools from year to year, and special grants were made for them. By the act of 1902 it was definitely declared that "all instruction after 4 p. m. is secondary," thus definitely deciding that hereafter the evening schools should not receive grants as elementary schools. Elementary instruction was still provided and grants made for it, but higher grants were paid for more advanced work. By this act the previous regulations regarding the evening schools were combined with the science and art regulations in so far as these affected the evening schools.

The evening schools as now conducted in England have a definite place in the educational system. Their value and function is brought

[a] M. E. Sadler and J. W. Edwards: Public Elementary Education in England and Wales. 1870–1895. In Education Department (England) Special Reports on Educational Subjects, Vol. I, pp. 54–55.

[b] Balfour: Educational Systems of Great Britain and Ireland, pp. 40–43.

out clearly by the prefatory note to the Regulations for Evening Schools for 1905:

> Every year affords further demonstration of the high value that attaches to the work of the evening schools where these have been developed in number and variety comparable with the needs of those who may be expected to attend them. The defining feature of the schools and classes passing under this general designation is that they are intended to maintain educational facilities for those already engaged in some occupation which takes up the greater part of their time. They therefore meet normally in the evenings or on Saturday afternoons; but where the employment by which the students earn their livelihood renders other times more convenient, classes meeting in the daytime may be recognized under the same category and are eligible for grants.[a]

As with the German continuation schools, these schools have grown up in response to a definite need, and so are better adapted to the varying requirements of the localities in which they are situated than are the regular elementary day schools. To quote again from the prefatory note:

> So diverse are the conditions under which such schools have to take part in the work of education, that no single definite scheme of organization or course of study can be prescribed as applicable to all localities. Circumstances of life in town and country, the number and variety of industries in the locality, previous education, and future prospects of students are some of the considerations that affect materially the possibilities of evening class teaching. In view of this great range of conditions, regulations which have to be of national application must necessarily be elastic. These regulations are drawn so as to permit the direct adaptation of the course of instruction in each school to the needs of the locality. At the same time they prescribe limitations which aim at securing definite educational results as a condition of grants.[a]

Conditions of admission.—No pupils are admitted who are not exempt from attendance at the regular day schools. The law requires all between the ages of 5 and 14 to attend the day schools unless they have attained a certain standard. The minimum age for admission to the evening schools is 12 years and very few are under 13. The age percentages of evening school pupils are shown in the statistics given on page 72.

Organization.—The organization is extremely varied. In the more advanced schools regularly organized courses are provided, extending over several years. In some there are also junior courses in elementary subjects, which are preparatory to the more advanced work. The aim of these courses is to afford pupils a complete training connecting their previous work in the elementary school with their coming technical studies. In these classes the material for study is taken directly from the industries in which the students are engaged.

[a] Regulations for Evening Schools, Technical Institutions, etc., 1905. Prefatory Memorandum. (In N. Y. T. Edition of Code for 1905, p. 162.)

In order to give a better idea of the organization in the more progressive schools, three systems will be given in detail; one in Montrose, Scotland; one in Leeds, and one in Manchester.

Montrose.—At Montrose there are not so many difficulties in the way of organization, owing to the comparatively small size of the city, but its system serves to show what may be done in the smaller places. There are three, or possibly four, divisions: First, there is the elementary division, which consists of a one-year course and "serves the purpose of completing an unfinished elementary school education." "It is open to all who are free from the obligation to attend school in terms of the education act."[a] Secondly, there are the courses grouped under the heads of domestic, commercial, industrial, science, and art studies. These are open to all who are over 16 years of age or who hold a qualifying certificate from the first or elementary division. Some of these courses are only one year in length, as the domestic course, while others are laid out for three or even four years of work. The third division consists of a one-year course, and is called the "Recreative course." It comprises courses in physical drill, gymnastics, and swimming, and is open to all who are in regular attendance on any of the other classes. It is thus supplementary to the others.

Leeds.—The system as organized in Leeds merits careful study. Here there is a definite attempt to meet the requirements of all grades of workers from the employer downward, and so to coordinate all the educational activities that each will work for the benefit of the others. The scheme is given in detail in a pamphlet issued by the higher education department of the city of Leeds for the year 1906–7. Only a few of the more important items will be given here.

There are five main lines laid out:

I. Technical and technological education and training.
II. Commercial education and training.
III. Education and training in art.
IV. Education and training in domestic arts.
V. Training course for teachers of all grades.

Each of these except the last has its foundation in the general evening schools, which are made preparatory to the later courses; that is, while the work in all the general evening schools is very similar, it is adapted more or less to the courses which follow. Starting, then, with the preparatory course in the general evening schools, we see a continuous line up through the elementary and intermediate courses to the advanced courses, and ending, in the case of the technical and commercial courses, in the University of Leeds. The "ladder" of the evening work in technology and that in commercial education is here given.

[a] Prospectus of Continuation Classes of Montrose. 1906–07.

Grade IV.—The University of Leeds. (Special lecture courses.)
Grade III.—Advanced and honors course.
Grade II.—Elementary and intermediate courses.
Grade I.—General evening schools. (Preparatory courses.)

The various technical and commercial schools throughout the city are utilized for this instruction, as are the art schools and the "domestic institutes." It thus becomes possible for anyone to pass through the different grades and receive a well-rounded and complete course in any branch of instruction which he wishes to pursue.

All of these courses are very complete. That in technical and technological education provides complete courses for persons engaged in the following trades:

1. Engineering trades.
   a. Mechanical engineering.
   b. Electrical engineering.
2. Electrical industries.
3. Building trades.
4. Leather and boot trades.
5. Clothing trades.
6. Chemical and allied industries.
7. Mining.
8. Textile industries.
9. Printing.
10. Farriery.

The instruction is by competent teachers and is very thorough and systematic.

Another interesting feature is the special half-day and evening engineering course which has just been established. This is offered to students in mechanical engineering. "By this means engineering employers of the city and district now have the opportunity of sending apprentices and trade boys who have exceptional merit or ability to the department of mechanical engineering of the technical school to receive a more thorough course of study than is possible in evening classes alone. Arrangements are made for a complete four years' course." Pupils must be over 16 years old, and preference is given to those actually engaged in engineering works who are sent by their employers. It is the intention to extend this plan to other lines of industry and trade represented in the city.

It is impossible to go into detail regarding the particular studies pursued. Enough has been given to show that in Leeds there is a very carefully worked out plan of coordinating and unifying the system of education for the working people. There has been a careful study of the conditions and needs of the city, and a definite, well-devised plan for meeting these needs, utilizing all the existing means for this end.

Manchester.—In Manchester there is also a graded system. In some respects it is not so elaborate as the one in Leeds, while in others

it is more complete. Manchester is noted the world over for its technical schools. Much the larger part of the system of technical education, as far as the number of pupils is concerned, has to do with the evening schools, in which there are enrolled nearly 30,000 pupils. As in Leeds, the buildings of the day technical schools are utilized.

The graded system here given is taken from the Directory of Evening Schools and Classes for the year 1906–7, published by the education committee of the city of Manchester.

The following table illustrates the graded system of courses of instruction in the Manchester evening schools:

GRADE III

MUNICIPAL SCHOOL OF TECHNOLOGY.—Specialized instruction in science and technology.	MUNICIPAL SCHOOL OF COMMERCE.—Specialized instruction in commercial subjects.

GRADE II.—*Branch technical and commercial schools. Evening institutes for women and girls.*

Technical courses extending over 3 years, to meet the requirements of all classes of artisan students.	Commercial courses extending over 3 years, to meet the requirements of juniors in business houses.	Domestic course extending over 2 years, for women and girls over 16 years old.

GRADE I.—*Evening continuation schools.*

Preliminary technical course extending over 2 years, for boys engaged in manual occupations.	Preliminary commercial course extending over 2 years, for boys and girls engaged in commercial or distributive occupations.	Preliminary domestic course extending over 2 years, for girls desirous of receiving a training in domestic subjects.

GENERAL COURSE.

For boys and girls who desire to improve their general education or who are not sufficiently prepared to take advantage of the above courses.

It will be seen that there are also well laid out courses based on the general continuation school and ending in the municipal schools of commerce and of technology. A boy entering the evening continuation school at 14 would thus nominally reach Grade III by the time he was 19 years old. The Municipal School of Commerce is an evening school entirely, and the School of Technology very largely so. In 1908 out of a total of 4,924 students only 234 were day pupils.

The whole population is considered in the organization, as at Leeds, and the needs of all classes of industrial workers, young and old.

Curriculum.—According to the code of 1905 the subjects in the evening schools of England are grouped in six divisions, as follows:

I. **Preparatory and general: Reading, composition, writing, arithmetic, knowledge of common things, elementary principles of science, elementary drawing, life and duties of citizens, theory of music, and vocal music.**

Literary and commercial: English, Latin, French, German, any other modern language, geography, history, economics, mercantile law and practice, commercial correspondence and office routine, bookkeeping, shorthand.

II. Art.

III. Manual instruction: Includes woodwork and metal work.

IV. Science: Any generalized or special branch of science, including mathematics, will be accepted if adequate.

V. Home occupations and industries: Needlework, domestic economy, cooking, dressmaking and cutting out, laundry work, dairy work, gardening, cottage industries, ambulance, home nursing.

VI. Physical training. This aims at the general physical development of those instructed. Adapted to the age and sex of the pupil.

These are the subjects authorized by the board for which grants are given. Few schools have all of these, nor is it intended that they all should. On the other hand, other subjects than those mentioned may, at the discretion of the board, be recognized. All schools must have at least two subjects, although no pupil is compelled to take more than one subject.

As has been said, the whole organization and plan of the schools is flexible, so that it may adapt itself readily to the needs of different localities. As a result, we find widely varying conditions in different places. In the rural districts courses are given in dairying and farriery as well as in the regular elementary subjects. In industrial centers the work takes on a distinctively industrial cast, and aims at supplementing the practical work of the apprentice. In other localities the instruction is more formal, and is comparable to that in the secondary school. There can be no doubt, however, that where the instruction is based on the vocation, as in industrial or commercial schools, the interest is far greater and the practical benefits derived are correspondingly more far-reaching and lasting. Pupils in general are unwilling to spend the time and energy necessary for general education, but must see some practical results forthcoming. The curriculum, as well as the whole character of a school, must shape itself to the needs of a particular locality, and hence must be studied with reference to the particular city in which it is situated. A glance at the course of study laid out in any of the industrial centers, such as Leeds or Manchester, will show the great variety of subjects given. No adequate idea of the course as a whole can be given here.

In order to give some idea of the arrangement and character of the work, three tables showing the courses of instruction in the Manchester schools are here given. By reference to the previous table of the organization of the schools, the proper place of each can at once be determined.

Courses of instruction extending over two years for students of evening continuation schools at Manchester.

SECOND YEAR EVENING CONTINUATION SCHOOL COURSE.

Preliminary artisan course for boys engaged in industrial pursuits.	Preliminary commercial course for boys or girls engaged in commercial or distributive occupations.	Preliminary domestic course for girls and young women who desire instruction in domestic economy subjects.	General course for boys and girls who are too backward to take one of the foregoing courses and who require instruction chiefly in the subjects of the day school.
Hrs. wkly.	*Hrs. wkly.*	*Hrs. wkly.*	
Workshop arithmetic 2	Commercial arithmetic 2	English 1	As below.
Woodwork and practical drawing 2	English 1	Dressmaking 2	
Elementary science. 1	Commercial correspondence and office routine 1	Home nursing 1	
English 1	Geography 1	Cookery a 2	
	Bookkeeping or shorthand 1		
6	6	6	

FIRST YEAR EVENING CONTINUATION SCHOOL COURSE.

Hrs. wkly.	*Hrs. wkly.*	*Hrs. wkly.*	The students in this class, as a rule, will receive instruction in reading, handwriting, and composition, the simple rules of arithmetic, with or without the addition of one or two other subjects, at the discretion of the head teacher. As the students will be of varying attainments, much of the teaching will necessarily be individual.
Workshop arithmetic 2	Commercial arithmetic 2	English 1	
Woodwork and practical drawing 2	English 2	Arithmetic and household accounts 1	
Elementary science. 1	Geography 1	Needlework and dressmaking 2	
English 1	Bookkeeping or shorthand 1	Cookery a 2	
6	6	6	

a Where cookery can not be taken, millinery or needlework may be substituted.

Courses of instruction extending over three years for artisan students in branch evening technical schools at Manchester.

SECOND YEAR TECHNICAL COURSE.

Engineering course.	Building trades course.	Chemical industries course.	Electrical course.
Hrs.	*Hrs.*	*Hrs.*	*Hrs.*
Machine construction 2	Building construction 2	Chemistry (theoretical and practical) 2½	Magnetism and electricity (theoretical and practical) 2½
Applied mechanics (theoretical and practical) 2½	Applied mechanics (theoretical and practical).. 2½	Physics (theoretical and practical) 2½	Mathematics and geometry 2
Mathematics 1	Mathematics. 1	Mathematics 2	Special machine drawing for electrical engineers.. 2
Geometry 1	Geometry 1		
6½	6½	7	6½

Courses of instruction extending over three years for artisan students in branch evening technical schools at Manchester—Continued.

FIRST YEAR TECHNICAL COURSE.

	Hrs.		Hrs.		Hrs.		Hrs.
Machine drawing	2	Building construction	2	Chemistry (theoretical and practical)	2½	Magnetism and electricity (theoretical and practical)	2½
Applied mechanics (theoretical and practical)	2½	Applied mechanics (theoretical and practical)	2½	Physics (theoretical and practical)	2½	Experimental mathematics	2
Experimental mathematics	2	Experimental mathematics	2	Experimental mathematics	2	Applied mechanics (theoretical and practical)	2½
	6½		6½		7		7

PREPARATORY TECHNICAL COURSE.

	Hours weekly.
Experimental mathematics	3
Preliminary physics (theoretical and practical)	2½
English composition	1
	6½

Courses of instruction extending over three years for students of the branch commercial evening schools at Manchester.

SECOND YEAR COMMERCIAL COURSE.

Shorthand clerks and typists.		Junior and invoice clerks.		Bookkeepers.		Correspondents and shippers' clerks.		Civil service.	
	Hrs.		Hrs.		Hrs.		Hrs.		Hrs.
Correspondence and office routine	2	Commercial arithmetic	1	Commercial arithmetic	1	English	1	Arithmetic	2
Shorthand	2	Bookkeeping	2	Bookkeeping	2	A modern language	2	Composition and handwriting	2
English	1	Shorthand	2	Correspondence and office routine	2	Correspondence and office routine	1	Geography	2
Commercial arithmetic	1	Correspondence and office routine	1	English	1	Commercial geography	1		
						Bookkeeping or shorthand	1		
	6		6		6		6		6

FIRST YEAR COMMERCIAL COURSE.

	Hrs.		Hrs.		Hrs.		Hrs.		Hrs.
Correspondence and office routine	2	Commercial arithmetic	1	Commercial arithmetic	2	English	1	Arithmetic	2
Shorthand	2	Bookkeeping	2	Bookkeeping	2	A modern language	2	Composition and handwriting	2
English	1	Shorthand	2	Correspondence and office routine	1	Correspondence and office routine	1	Geography	2
Commercial arithmetic	1	Correspondence and office routine	1	English	1	Commercial geography	1		
						Bookkeeping or shorthand	1		
	6		6		6		6		6

PREPARATORY COURSE FOR ALL CLASSES OF COMMERCIAL STUDENTS.

	Hours weekly.
Commercial arithmetic	2
English	2
Geography	1
Commercial correspondence and office routine	1
	6

Girls in branch commercial schools may have the option of taking a domestic course when such subjects are already taught in these schools.

In the effort to reach the rural communities, traveling schools have been established in not a few places. These have proven to be of very great service. In Hampshire the education committee maintains two of these schools, namely, a dairy school and a traveling forge for instruction in farriery. These travel for forty weeks during the year, giving a course of ten days in each place.[a] In the dairy school there are ten churns, one for each student. The students are taught how to make butter and soft cheese, and are instructed in the use of the cream separator. Among the appliances used is a Gerber butter tester, and when the dairy school is located in a district the farmers of the district can have their milk tested free. The fee for a ten-day course is 2s. 6d.; for five days, 1s. 6d. The work is very much appreciated and is thoroughly remunerative also. The traveling forge accommodates four persons at a time. Only smiths are allowed to attend. The class is usually held from 6 to 7 p. m. The van is equipped for horseshoeing, and a very practical course of instruction is given. Although there are many continuation schools of a very elementary character in the rural districts, there is very little support for them; while these traveling schools, ministering directly to the needs of the people, are cordially welcomed and supported.

Administration.—As was seen from the history of these schools, the administration was formerly divided between the science and art department and the education department. Now, as far as they are administered by educational authority, the education department has complete charge. It is well to realize, however, that a great many of these schools, especially in London, were founded by the various guilds, and many are conducted in connection with the private technical schools throughout the country. These night classes often reach a far greater number of people than do the day classes. All these may receive grants from the education department if their courses comply with the regulations. So we see that the education department has come to exercise supervision over schools of diverse character, which are supported by agencies of widely different natures. Those established or taken over by the local educational authority come directly under its jurisdiction, while those established and supported by other agencies do not, and are independent except in regard to the grants. They must comply with certain conditions imposed by the education department if they wish to receive the grant. "Natural development has brought about a condition in which industrial success, responsible citizenship, and social solidarity all require intelligent and moral stability." Hence the education of the working people is no longer a private matter, but an urgent

[a] M. E. Sadler: Secondary Education in Hampshire, p. 62.

necessity resting on the state. It has thus come about that more and more the state is taking upon itself the support and education of the working people.

Support.—Each school is supported partly by local authority, either private or public, and partly by public grants from the central government. At least 25 per cent of the expenditure of the school must be met by the local authority, by endowments, subscriptions, tuition fees, etc.[a]

The system of grants has changed greatly from time to time. At present the public grants are extensive and variable. It is by this means that the central educational authority exercises supervision and direction over these schools. Grants are limited to pupils over 12 years of age and to instruction given after 4 p. m., although by special arrangement the latter rule may be broken. "No grant will be made for instruction in any subject or course in which less than twenty hours of instruction is given in the year. No student's attendance in any course may be counted unless he has received at least fourteen hours' instruction in that course."[b]

The grants are given for attendance and for results of examinations. The grants for attendance vary from 1s. 6d. for physical training to 3s. 6d. for ordinary work in the other divisions. This amount can be and usually is increased for special work. As high as 25s. may be given in some science subjects. Such grants are payable to the school for each scholar for each complete twenty hours of instruction received. The number of hours that can be counted for such work is limited, varying from 60 to 160 hours. These grants are protected by various provisions as to the length of the recitation period and the quality of the instruction.

Grants on examination are made for scholars who have received at least twenty lessons in each subject during the year, and are as follows:

(*a*) £3, £2, and £1 for an excellent, first class, and second class in drawing from life, modeling from life, or architectural design.

(*b*) £6 and £3 for a first and second class "in honors."

Grants will not be allowed for more than three such examination results for the same individual in any one year.

This system is much the same as that of the day schools, and has grown up gradually. It may well be questioned from the American standpoint whether it has been altogether beneficial in its results, and what the outcome will be we can not foretell. At present it seems absolutely necessary to the maintenance and support of continuation schools and technical education.

[a] Regulations for Technical Schools, etc., for 1906, Part I, sec. 12. (In N. U. T. Edition of Code, p. 95.)

[b] Ibid., Part I, Chap. II, arts. 25–34.

Prizes and certificates.[a]—Certificates are given to each student who successfully passes the examination in any subject. These are of two grades: The ordinary one for merely passing, and the honors certificate. Attendance certificates are also given to students who have attended at least twenty-five hours of instruction. Special certificates are given to those who have passed in the drawing subjects, in science, and in art. Certificates given by outside agencies, such as the city and guilds of London Institute, are also honored by the board.

Following the custom of the day schools, there is an elaborate system of prizes, medals, etc. Wyatt says, "It is absolutely necessary to give prizes in the evening schools." This seems to be the general feeling, and one can well realize that it is so, especially when the prize system in the day school is considered. These prizes and awards are of various kinds—books, instruments, etc., medals, and scholarships. The prizes are awarded partly by the board, but mostly by outside agencies. For these there are often special examinations. In the year 1902–3 the value of the prizes given by the London school board was £860.

Examinations.—Examinations are given in all subjects. Previous to 1894 all students were examined by the Government inspector in the ordinary course of the examination of schools. Now, however, these examinations are given by a great variety of bodies.[b] In London, among the more important of these are the Institute of Bankers, the Chamber of Commerce, the city and guilds of London Institute, Cambridge University, and the school board. This has resulted from the complicated system of grants, prize scholarships, etc., now in vogue.

Fees.—The question of charging fees has been in a very unsettled condition, as is well illustrated by the history of the evening schools of London.[c] In 1882 a fee of 3d. per week, or 3s. per quarter, was charged. From 1884 to 1889 most schools charged from 1d. to 2d. per week. There was an extra charge for French and also for cookery. For a few weeks in 1888 and 1889 a fee of 1s. per week was charged for adults, but it was soon discontinued. In 1898 the schools were freed after several unsuccessful attempts. They remained free until 1902, when the management was changed, as was noted above. In the session of 1902–3 the schools were free to all under 16 years of age, to soldiers in uniform, and to the deaf. At present the fee for

[a] Regulations for Technical Schools, etc., for 1906, Part I, Chap. VI, articles 73–75.

[b] School Board of London, 1870–1904, p. 276.

[c] Ibid., p. 274.

ordinary schools is 1s. per session for those over 16 years, and it ranges up to 5s. per session for special subjects. The tendency is distinctly in favor (1) of charging fees for all evening students; (2) of making fees for those under 16 less than for those over that age; (3) of charging more for higher than for elementary subjects. It is found that a nominal fee is more likely to insure a good attendance. In the prefatory memorandum to the code for 1905 this statement of the attitude of the board is made:

> The board have in the past few years exercised a certain amount of pressure in the direction of inducing managers to charge fees to students attending evening schools and classes, and the experience of these three years [1902–1905] has tended to confirm them in the view that a charge of the kind is in the best interests of education. They realize, however, that in a few of the rural districts, and in the poorer parts of some towns, the adoption of the fee-charging system requires to be introduced gradually, and, indeed, in a small number of cases is still unadvisable. They are prepared to consider upon its merits each case where it is proposed either to charge no fees at all or to remit the fees on a large scale.[a]

In Manchester, in order to induce the pupils completing the elementary school to begin at once attendance at the evening school, it was decided in 1904 to remit the fee to all such pupils. The increased attendance has amply justified the experiment and the plan has been continued.

Hours of attendance.—The usual number of evenings per week is three, but in certain cases four or even five evenings are given. The ordinary hours are from 7.30 to 9.30, but in the commercial schools and some others they are from 7 to 9.30. This interval is divided into two or in some cases into three periods. The session usually begins in the middle or latter part of September and lasts until the end of April. A small number of classes continue until the middle of July, but very little work of a solid character is done after the end of April. Many schools do not begin until the first of November.

In several places day classes are held, and are recognized by the education department as of equal rank with the evening classes. As was seen in Leeds, there is a definite movement on foot to provide part-time day classes for young apprentices. Arrangements are made with employers or masters by which the brighter apprentices are enabled to secure more thorough and systematic instruction in the day classes of the higher technical and industrial schools. The general tendency is well stated by Mr. Robert L. Morant, the secretary of the board of education, in the Prefatory Memorandum to the Regulations

[a] Regulations for Evening Schools, etc., 1905. Prefatory Memorandum. (N. U. T. Edition of Code of 1905, pp. 165–166.)

for Technical Schools, Schools of Art, and Other Schools and Classes for Further Education, published by the board of education in 1906:

> Year by year the evening school system is being more fully developed, and the schools are fulfilling an ever larger function in the supply of higher education, but it is now no longer the distinguishing feature of the branch of educational work which may be called "Further education" that it is carried on in the evening. In many cases employers find it possible to set their apprentices free in groups for instruction in school on certain mornings or afternoons weekly throughout the year or during certain seasons of the year; classes in domestic subjects meeting in the afternoon are found to suit the convenience of girls and women who are occupied in their homes during the evenings; winter courses in agricultural subjects for farmers' sons and vacation courses for teachers run continuously for several weeks of whole-day attendance; short local day courses in dairying and other rural industries are conducted by county instructors, and the development in recent years of facilities for specialized work of a high standard in technical institutions and schools of art has been a conspicuous sign of the increasing appreciation of the value of technical education. These higher centers of educational influence are now brought, by systems of bursaries and free admissions, within the reach of numerous students who, but for their previous evening school training, would have been unprepared to take full advantage of them. Indeed, not only has there been a marked advance in the volume and standard of the work carried on in day classes, but day and evening classes alike are being more and more fully organized as component and reciprocally helpful parts of one coherent scheme for further education.

The great problem in these schools is that of irregular attendance. The per cent of average attendance is estimated by Creasey to be below 60.[a]

> Various methods which have been tried to secure more regular attendance have met with little or no success. Returning the whole or part of the fee, annual outings or social evenings during the session, lantern entertainments, and concerts, making the schools absolutely free are experiments which have only been successful in isolated instances. The lack of any real liking for study, of any desire to learn on the part of the students, and counter attractions have proved too strong.[b]

The personality of the teacher has very much to do with the regularity of attendance. Some authorities are strongly urging compulsory attendance for a certain length of time, up to 16 or 17 years. It is not probable that this will be done for some time.[c]

Attendance.—That these schools have in an increasing manner ministered to the needs of the people may be clearly seen by glancing at diagram 6 (p. 69), which shows the growth in the total attendance on the evening schools in England and Wales from 1890 to 1904. The sudden rise from 1893 to 1894 is due to the fact that in 1894 the grants were extended to those over 21 years of age. This diagram represents in only a partial way the increased facilities, for the schools have increased greatly in efficiency as well as in attendance.

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[a] Creasey: Technical Education in Evening Schools, p. 30.
[b] Ibid., p. 31.
[c] Ibid., pp. 35, 297.

In order to understand the place that the evening schools occupy and the function which they fulfill, it is necessary to consider briefly the general educational system of England and the extent to which existing day schools reach the people. This is a very complicated matter, owing to the impossibility of securing accurate data from the numerous schools to which the Government does not give grants, and any results given must be subject to some error.

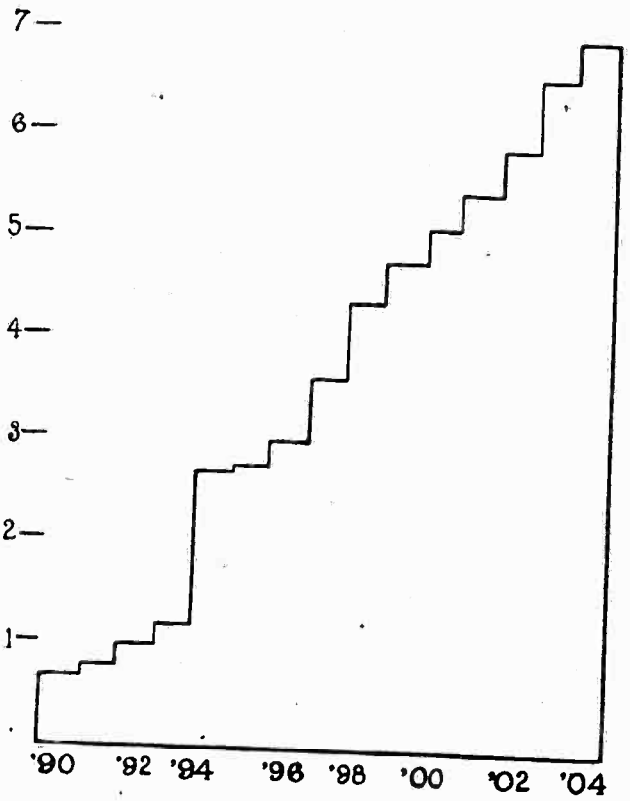


DIAGRAM 6.—Total attendance in the evening schools of England and Wales for each year from 1890 to 1904. The numbers at the left of the figure show the enrollment in thousands.

The statistics which form the basis for the tables and diagrams which are here given have been taken from the reports of the board of education of England for the most part. The estimated number of children up to 15 years, the number in the public elementary schools, and the number in the evening schools are from the same source.

The data for the secondary schools have been taken from the only available source—the voluntary census of 1897. No attempt has

been made to separate the real "secondary" from the other schools represented in this census, since this would be impossible, and for the present purpose it is unnecessary. Neither has any attempt been made to correct the figures given in 1897 for the "secondary" schools so as to make them more nearly represent conditions in 1900, for the reason that no satisfactory basis for such correction can be found. Undoubtedly there has been a large increase in the number attending the secondary schools which receive grants. Whether this has been attended by a like increase or by a falling off in the attendance on private, endowed, and other schools not receiving grants, or is partly due to the fact that some of these schools that had not previously received grants had come under the conditions of the grant, we do not know. It therefore seems better to leave the figures as they are, realizing that such a source of error exists. This is somewhat offset by the fact that in the statistics grouped under public elementary schools are included schools and institutions for deaf, blind, epileptic, and defective children. In these in 1904 there were under instruction 10,603 children, who would only partly offset the gain in the secondary pupils.

In addition to the pupils in the schools mentioned, there are also pupils in the day art classes and some day pupils in the schools of art; also the pupils in the day classes of the technical institutions and in the universities must be borne in mind. But all these taken together form so small a per cent of the whole number considered that it is hardly worth while to include them.

The first table (Table XVII) takes the estimated number of children 9 years old as a basis, and shows for four given years the per cent which the pupils in the public elementary schools at different ages are of this number.

TABLE XVII.—*Per cent of children in the public elementary schools at each year of age from 9 to 14.*

Year.	Between 9 and 14 years of age.						15 and over.
	9.	10.	11.	12.	13.	14.	
1897	86.0	85.0	81.0	69.5	29.0	7.0	1.0
1899	85.0	84.0	81.5	70.5	30.0	7.0	1.0
1900	84.0	83.0	80.0	71.0	30.0	6.5	1.1
1902	93.0	91.0	87.0	81.0	47.0	8.0	1.1
Medians	85.5	84.5	81.5	71.0	30.0	7.0	1.1

This shows that the children remain in school fairly well until the twelfth year, when they drop out very rapidly, only 30 per cent being in school at 13 and only 7 per cent at 14. As far as the elementary

schools are concerned, then, very little education is given after the fourteenth year. It must be noted that there is a distinct increase in the proportion of children in school from 1899 to 1902, indicating a definite attempt to remedy this great elimination.

The term "Public elementary schools" includes the elementary, the certified efficient, and the higher grade elementary schools, as well as those for the blind, deaf, and defective.

It is necessary next to consider the pupils in day schools other than the public elementary schools. As has been said, no one term will cover the various schools represented here. Many are doing elementary work, while some go beyond what is ordinarily called the secondary grade. The statistics collected in the voluntary census of 1897 undoubtedly represent the great majority of schools other than public elementary schools. Great care was taken in sending out requests for information, and it is certain that all the larger schools responded and nearly all the smaller ones. It should be said, however, that they represent only England, excluding Monmouthshire, while those for the elementary and evening schools represent Wales and Monmouthshire. The addition of the records for these two territorial divisions, were they obtainable, would not materially affect the result.

The number of pupils in other than public elementary day schools in England (excluding Monmouthshire) in 1897, expressed as per cent of total number of children 9 years old, was as follows:[a]

TABLE XVIII.—*Per cent of children in day schools other than public elementary.*

Age.	Per cent.	Age.	Per cent.
9 years	2.8	15 years	8.9
10 years	3.3	16 years	2.3
11 years	3.8	17 years	1.2
12 years	4.5	18 years	0.5
13 years	5.5	19 years	0.2
14 years	6.3		

Estimating the number in Wales and Monmouthshire, and correcting for 1900, the outside limit is as follows:

Age.	Per cent.	Age.	Per cent.
9 years	4.3	15 years	6.8
10 years	5.0	16 years	3.6
11 years	5.7	17 years	1.8
12 years	7.0	18 years	0.77
13 years	8.6	19 years	0.3
14 years	8.2		

[a] Based on voluntary census of 1897. Parliamentary Papers, 1897, Vol. LXX, C. 8634.

We now come to the evening schools. Table XIX represents records for three years, and shows clearly the extent and place of their work. They begin with the twelfth year and reach their maximum at the fourteenth year, and have their greatest influence during the years of 13 to 20. After the fourteenth year they are practically the only means of education for the people.

TABLE XIX.—*Per cent of young people in evening schools at various years of age.*

Year.	Under 13.	Between 13 and 20 years of age.							21 and over.
		13.	14.	15.	16.	17.	18.	19.	20.	
1899	2.0	7.2	12.7	11.0	8.5	5.6	4.0	2.8	2.0	9.4
1900	1.5	7.3	13.0	12.0	9.0	6.2	4.3	3.1	2.3	10.8
1902	1.0	7.3	15.0	13.6	10.7	7.3	5.2	3.5	2.7	13.0
Medians	1.5	7.3	13.0	12.0	9.0	6.0	4.3	3.0	2.3	11.0

The total extent to which the people are reached is shown graphically by diagram 7. The number living is, up to the year 14, taken from the records of the school board, and, while estimated, it is undoubtedly a very close estimate. After the age of 14 the line follows the usual "death rate," and exaggerates rather than minimizes the elimination by death.

The ages of evening school pupils are shown in Table XX.

TABLE XX.—*Age distribution of pupils in English evening schools, expressed in percentage of total attendance.*

Year.	Under 13.	Between 13 and 20 years of age.							21 and over.
		13.	14.	15.	16.	17.	18.	19.	20.	
1899	2.9	11.0	19.5	16.9	13.0	8.7	6.2	4.2	3.2	14.4
1900	2.1	10.6	18.8	17.1	12.9	8.9	6.2	4.4	3.4	15.6
1901	1.2	9.1	19.0	17.1	13.5	9.2	6.6	4.4	3.4	16.6
Medians	2.1	10.6	19.0	17.1	13.0	8.9	6.2	4.4	3.4	15.6

Table XX, taken in connection with diagram 8, indicates clearly the general distribution. The maximum attendance is at the fourteenth year and decreases somewhat rapidly after that. Over 80 per cent of the pupils in the evening schools are under 21 years old. These schools are, then, as in Germany and as with us, schools for young people. It is worthy of note that there is an almost continuous decrease in the per cent of pupils below 15, and a corresponding increase in those over 21, while the proportion of those between 15 and 21 increases slightly. This decrease in the proportion of evening school pupils below 15 is coincident with the increase in the proportion of

children 12 to 15 years old in the elementary schools noted above (Table XVII).

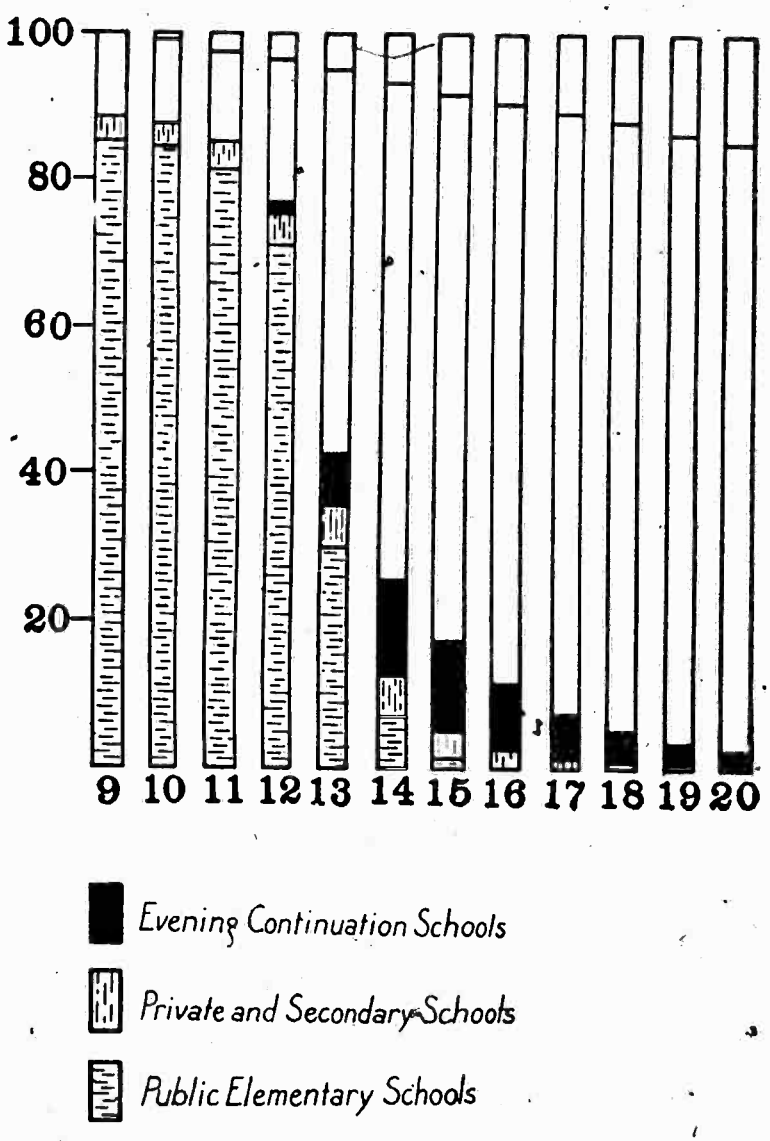


DIAGRAM 7.—Enrollment in schools of different kinds in England and Wales, expressed as per cent of the estimated number of young persons 9 years old. It is based on Tables XVII, XVIII, and XIX. Each column represents the per cent of the enrollment at a given age on the estimated number of young persons 9 years old. The lines at the top show the elimination by death. The total number living at each age would thus be shown by the length of the column up to this "death-line."

The proportion of evening pupils from 12 to 15 is much greater in the large centers of population and industry than in the country as a whole. In London and Manchester the per cent was as follows:

	12 to 15 years.	15 to 21 years.	21 years and over.
London:			
1901	37.5	39.0	23.5
1903	44.0	33.5	22.5
Manchester:			
1900	38.6	46.0	15.4
1903	41.5	35.5	23.0

In both cities the proportion below 15 increased between the years given, while in the case of London the proportion below 21 remained practically the same. It will be seen, also, that in 1903 the proportions below 21 and above it were almost exactly the same for the two cities.

It is clearly seen from this brief review of the situation what an exceedingly important function the evening schools perform. They furnish practically the only education to the great majority of the English people after the fourteenth year. In London the school board reported that, in 1902, 15 per cent of the population between the ages of 15 and 21 were enrolled in the evening schools. This is a creditable showing as far as the evening schools are concerned, but still leaves

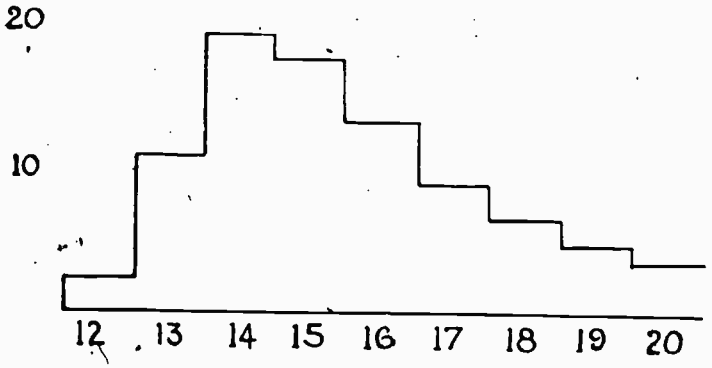


DIAGRAM 8.—Age distribution of pupils in English evening schools between the ages of 12 and 20 years. Based on Table XX.

fully three-fourths of the people between those ages not enrolled in any school. The present educational conflict in England will undoubtedly result in greatly increased facilities for the education of the young in day schools and will to some extent relieve the condition shown by the statistics given above. The evening schools, however, will also increase in efficiency and minister more fully than now to the needs of the young working people.

Social life.—One great feature of the work of the evening schools is, that "each school is, for the most part, a little center of life and civilization, and not merely a collection of classes."[a]

One advantage of this work is that it helps to develop the feeling of coherence and the spirit of democracy. Social gatherings are allowed in the London evening school rooms once a month on evenings when the school is not in session. No fee is charged for this. These schools are, in a measure, the social clubs of the common people, and are of very great influence and importance. Indeed, so much is made of this feature in places that it has called out such severe criticism as that of Sir John Gorst, who, in an address previous to the passage of the act of 1902, said, "In the evening schools an increasing number dance and swim and gaze at magic lanterns; a decreasing number avail themselves of the opportunity for real study. As a plan of giving innocent recreation to the masses, the system of evening schools has been a success; as a means of making up the terrible deficiencies of our people in commercial and technical capacity, it is a failure." This criticism is, however, not applicable to so great a degree now as then.

Teachers.—The teachers are appointed at each session, and are mostly chosen from the assistant teachers of the day schools. Where evening instruction is given in connection with technical schools and universities, the regular staff also conduct the evening work. The classes in shorthand, bookkeeping, and other special subjects are often taught by men engaged in corresponding work during the day. In some places master workmen are employed for the practical instruction. The proportion of men teachers is greater than that of women. As these schools become specialized, it becomes increasingly difficult for the ordinary day school-teacher to minister successfully to the needs of the pupils. Special training is already demanded in many places and the demand will increase. The salaries are from 4s. to 16s. per evening, with extra remuneration based on the average attendance.

In Montrose, Mr. Strong's method of obtaining teachers is worthy of note. One principal difficulty has been in securing teachers who understand both the practical and the theoretical sides of the work. Being unable to secure such a teacher for his class in plumbing with the salary available, he effected a combination by which the theoretical side was given by the regular day teacher of science, while the practical side was given by a master plumber. In order to secure the cooperation of the plumbers in the city, and at the same time secure the best man for the work, Mr. Strong called a meeting of all the

[a] Report of the London School Board on Evening Continuation Schools for 1903, p. 60.

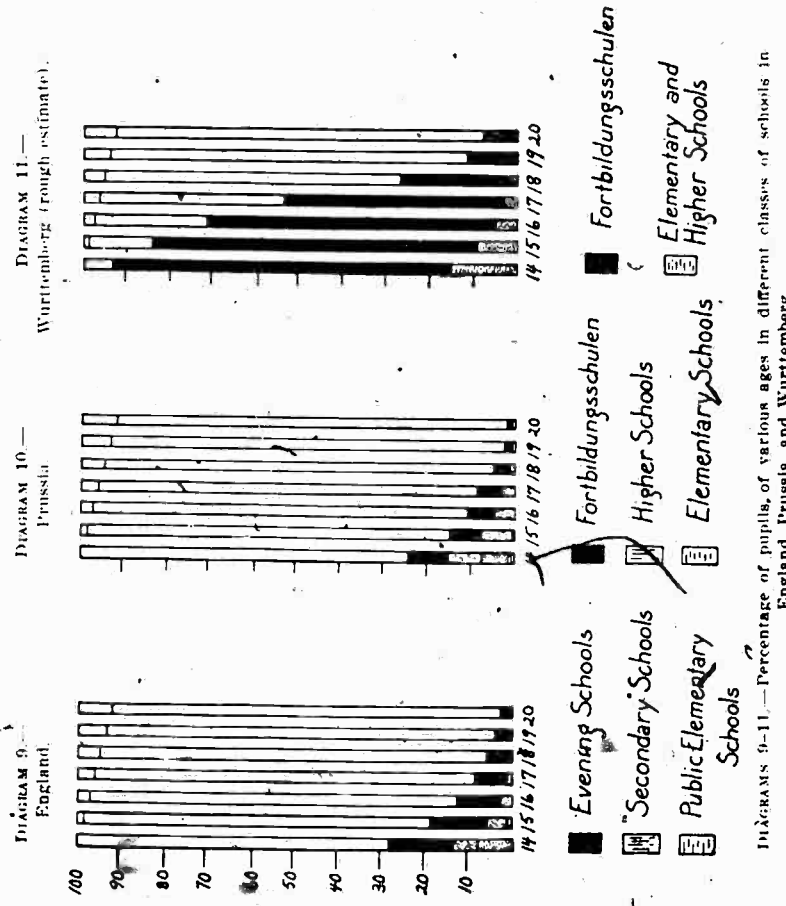
master plumbers, explained what he wished to accomplish in the plumbing class, and then asked them to recommend some one of their number for the place. This they did, and the one recommended was appointed. The same plan will be adopted in the case of the cabinet-makers. None but apprenticed boys are admitted. In the plumbing class, all apprenticed plumbers in the city attend. By careful cooperation between the theoretical and practical teachers and the director the work is unified. The object for which Mr. Strong is working is of course a combination of the two elements in a single teacher, but the cooperation of the two teachers forms a very fitting transitional stage; for it not only overcomes the initial difficulty of establishing the system, but it secures the cooperation of the master workmen at the very beginning of the undertaking.

Advertising.—Every effort is made to attract pupils to the evening schools. This is done by the system of prizes and scholarships and by actual advertising. In London the schools are extensively advertised both by posters and in the newspapers. Lists of pupils are also sent to the evening school-teachers, who send letters of invitation and prospectuses of the work to such as would naturally come to their schools. The day school-teachers are retained in the evening schools of the same district with the purpose of holding their boys after they leave the day school. Another method is that of the public distribution of prizes and scholarships.

From the foregoing outline it is evident that, while the English evening continuation school system is not so definite nor so well articulated with the general educational system as that in Germany, it is more widely diffused, and perhaps reaches more of the people. It is of the greatest importance in the education of the poorer classes. The purpose of these schools is not to supersede the training of the workshop, but merely to supplement it. The schools, even where they are the most completely industrial in character, aim only to supply what the shops do not give and keep the student abreast of the latest developments of invention and of the applications of science to his trade. There is somewhat more shopwork given than in the German schools, but this is for the distinct purpose of clinching the instruction given in the classes. While the emphasis in many of these schools is distinctly on the industrial side, and must so be, this is not the main purpose. The aim is, "By giving the student what is useful to develop what is fine." The method of reaching the student is through his interests, but the instruction aims to develop character, to make better citizens, who will see their relations to the community and to the State and recognize their responsibilities as citizens.

C. STATISTICAL COMPARISON WITH CONDITIONS IN THE UNITED STATES.

The following graphic representation (diagrams 9–15) shows clearly something of the relative part which the different classes of schools play in the education of the young people in the countries and cities there considered. Each column represents the per cent of pupils



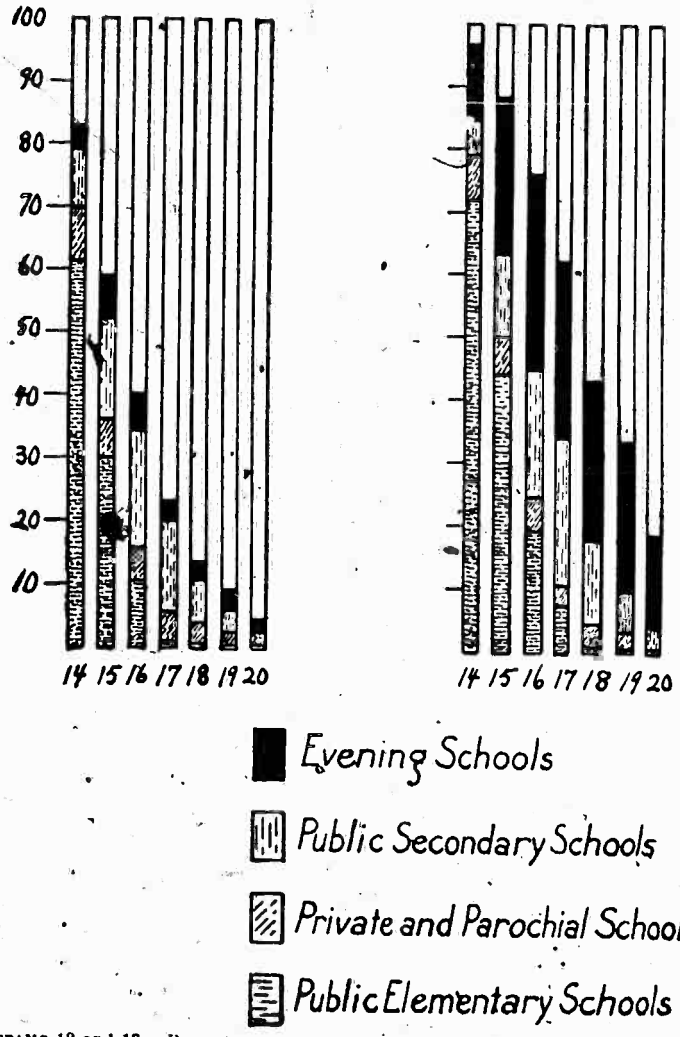
DIAGRAMS 9–11.—Percentage of pupils, of various ages in different classes of schools in England, Prussia, and Württemberg.

of a given age based on the estimated number of children of a given age, the different types of school being kept separate. The column representing Springfield would read: "The number of young people 14 years old in the public elementary schools is 72 per cent of the total number of children 14 years old in the city; those in private schools are 7.7 per cent of the total number; those in the public high schools are 5.4 per cent of the total number, and those in the evening

school 12.5 per cent. About 3 per cent are not enrolled in any of these schools." All the other columns would be read in the same way. No death line elimination is given for the reason that in the cities,

DIAGRAM 12.—Sixteen cities of the United States.

DIAGRAM 13.—Springfield, Mass.



DIAGRAMS 12 and 13.—Percentage of pupils of various ages in different classes of schools in 16 cities and in Springfield, Mass.

as has been mentioned before, the estimated number of persons at each age from 15 to 20 years is more than that for 14 years old.

The statistics for England are found on pages 70, 71, 72, those for Prussia on page 50, and those for the sixteen selected cities and Springfield on pages 16, 20, 24.

The statistics for Manchester and Berlin are given below. They are all for the year 1904, and are accurate in regard to enrollment. The Manchester statistics are taken from the Report of the Education Committee of Manchester for the year 1903–4. In that report the evening school pupils are given by age groups only, but they have been distributed according to the complete returns in the report for

DIAGRAM 14.—Manchester, England.

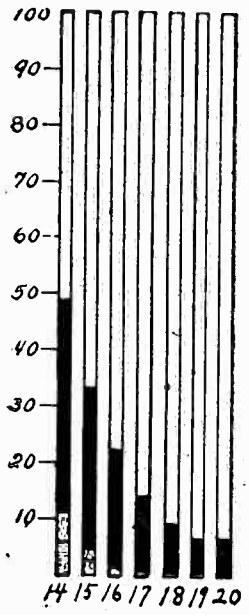


DIAGRAM 15.—Berlin, Germany.

DIAGRAMS 14 and 15.—Percentage of pupils of various ages in different classes of schools in Manchester, England, and Berlin, Germany.

1900. The total number of persons 14 years old was estimated as carefully as possible. The census of 1891, which gives the population by age groups, was taken as a basis. The group from 10 to 14 years old was taken and increased in the same proportion as the increase in population to 1904. The number 14 years old was then cal-

culated, taking the estimated number 10 to 14 years old given by ages.

The Berlin statistics are from the Statistisches Jahrbuch der Stadt Berlin for 1904. In this, complete age statistics are given for all the public and private higher, intermediate, and elementary schools up to the sixteenth year, and for the Gymnasium, Realgymnasium, and Oberrealschule up to the twenty-first year. With these latter as a basis, the pupils of the other schools have been distributed. The pupils in the Fortbildungsschulen have been distributed according to the method employed on pages 47–48 for distribution of the pupils in Prussia. The estimated number 14 years old was found by taking the age group 10 to 14, given in the Jahrbuch, and distributing it according to the age statistics given by a previous census.

TABLE XXI.—*School attendance, by ages, in Manchester (England) and Berlin, and per cent at each of the number of children 14 years old.*

MANCHESTER.

	Between 14 and 20 years of age.						
	14.	15.	16.	17.	18.	19.	20.
Public elementary schools:							
Number	878	270	.....	.....	.....	.....	.....
Per cent	6.5	2.0	.....	.....	.....	.....	.....
Secondary and private schools:							
Number	642	359	175	99	48	11	0
Per cent	4.8	2.7	1.3	0.7	0.3	0.1	0
Evening schools:							
Number	5,038	3,772	2,829	1,832	1,174	849	903
Per cent	37.3	27.9	20.9	13.5	8.7	6.2	6.7

BERLIN.

Elementary schools:							
Number	6,645	97	29	5	.....	.....	.....
Per cent	21.7	0.3	0.1	0	.....	.....	.....
Middle and girls' higher schools:							
Number	2,143	733	644	520	221	.....	.....
Per cent	7.0	2.4	2.1	1.7	0.7	.....	.....
Boys' secondary schools:							
Number	2,626	1,783	1,591	1,350	968	348	128
Per cent	8.6	5.8	5.2	4.4	3.2	1.2	0.4
Fortbildungsschulen:							
Number	10,380	9,965	8,820	6,748	3,931	1,350	934
Per cent	33.8	32.6	28.7	22.0	12.8	4.4	3.0

The statistics for the elementary, intermediate, and secondary schools in Wurttemberg have been very roughly estimated and grouped together, while the pupils in the Fortbildungsschulen have been distributed according to the age statistics given above. The only reason for the introduction of Wurttemberg here is to show the extent to which that State leads the world in this particular type of school.

A comparison of the columns representing England, Prussia, and Wurttemberg reveals in a striking manner their educational differences. Up to the age of 14, as already shown, practically all chil-

dren in Prussia are in school, and nearly all in England. Beginning with the fourteenth year, however, less than 15 per cent are in elementary and secondary day schools. The resemblance between the two countries is striking up to the sixteenth year. Prussia holds her young people in the secondary schools for a longer period than does England. England has a larger percentage of pupils in the evening schools than Prussia, but far less than Wurttemberg.

Care must be taken in interpreting statistics of any kind, especially those of foreign countries. Especial care must be exercised here, because these statistics take no account of the trade schools of Prussia and Wurttemberg. The comparison merely shows the relative place in the different countries of the particular types of school mentioned.

It is to be regretted that there are no reliable statistics of the entire United States which we can place beside those of England and Prussia. The columns for the sixteen selected cities do not represent the country as a whole, of course, and so are not comparable with those for the countries here shown.

The columns representing the cities (diagrams 12–15) are more nearly comparable. Here certain clearly defined differences appear. As we would expect, Berlin is far ahead of Prussia, both in relative number enrolled in elementary and higher schools and in continuation schools. Manchester is not so far ahead of England as Berlin is ahead of Prussia. It is, however, when we come to compare the cities of the United States with Manchester and Berlin that the most striking differences appear. The sixteen cities collectively, and Springfield in particular, hold a very much greater proportion of their young people in the elementary and secondary schools than do Manchester and Berlin. In fact, the proportionate number of pupils in the elementary and secondary schools of the sixteen cities of the United States studied, taken as a whole, is greater at most ages than the proportionate number enrolled in the elementary, intermediate, secondary, and continuation schools all put together in Berlin. This must not be taken to be more than a quantitative statement of the schools under consideration. There are in Berlin a large number of young people, something over 15,000, in trade schools, which are not shown in the statistics given, in addition to those in technical schools, schools for masters, etc., which would materially increase the proportion. It would seem to be true, then, that the number and probably to a large extent the class of young people that are in the trade and continuation schools of Berlin are with us found in the elementary and secondary schools. This may or may not be a cause for congratulation on our part. The question naturally arises, if the young people in this country who are found in our day schools do repre-

sent to a large extent the class found in the Berlin trade and continuation schools, are we giving them as good a start, are we helping them in the way of making a living, of becoming self-supporting, self-respecting, intelligent citizens, to as great an extent as is Berlin? At the same time, it also points the way to the splendid opportunity which America has. We have a comparatively large number of pupils in school during this period of life. The question, then, becomes one of adapting the schools which we have more nearly to the needs of the young people. It suggests also that our problem of the continuation school is not quite the same as that of England or Germany.

It is interesting to note that in Springfield, which probably represents the high-water mark in the development of evening schools in this country, there are more pupils proportionately in the evening schools at most ages than in Berlin or Manchester. This is especially noticeable from the years 17 to 20. But the columns representing the medians of the sixteen cities indicate that in most of our cities as regards evening schools we are much below the standard set by the larger English and German cities.

IV. DIFFERENT TYPES OF CONTINUATION SCHOOL.

There are, perhaps, three or four general types of continuation school in the United States which are fairly well defined: The evening school, the educational classes of the Young Men's and the Young Women's Christian associations, together with the educational work conducted under the direction of Roman Catholic, Hebrew, and other religious societies of similar educational character, and the correspondence school. The general purpose of these and the character of their work are described in the following pages. But when we go beyond these we find so many different kinds of school and such a variety of work done that it is impossible to classify them fully or even to name them all. The attempt made is rather to describe carefully a few of these institutions which represent the better work and show the tendencies of the day. Most of those chosen are located in New York City. These are selected because it has been possible to make a personal examination of their work. They are classed under special schools and schools for apprentices and employees. The special schools are more or less philanthropic in their character and represent very different types of work. The following examples are here described:

1. Cooper Union.
2. Mechanics Institute of New York City.
3. Pratt Institute.

The schools for apprentices and employees are somewhat different in purpose and methods from those already mentioned. The examples chosen are:

1. Chicago School for Apprentices.
2. Cooperative Engineering Courses of the University of Cincinnati.
3. School for Apprentices of the General Electric Company, of Lynn, Mass.
4. School of R. Hoe & Co., New York City.
5. Schools for clerks of John Wanamaker, of Philadelphia, and Sears, Roebuck & Co., of Chicago.

A. EVENING SCHOOLS.

There is no other educational agency which to-day is reaching so large a part of the working people as the public evening schools. Their development, especially during the past quarter century, has been very rapid, and they seem destined to be, for some time to come, if not permanently, the great means of education for the working people. They are reflecting more nearly the needs of the people than ever before and, in doing this, are coming to have characteristics so different from those of the day schools that they are attaining a distinct place in the educational system.

Historical.—The early history of the evening schools in this country is so obscure, so little that is reliable has been written in regard to it, that some of the more prominent features of their early development will be given at this place.

We may roughly divide the history of these schools into three periods:

I. Private schools kept in the evening for pay. These were the same in character as the day schools and were merely a development of the tutorial system. This period extends from early colonial times to about the third decade of the nineteenth century. These schools are significant because (1) they reached a certain class of people—apprentices and others not otherwise provided for; (2) they accustomed the people to the idea of schools in the evening; and (3) they drew attention to the fact that many who were at work needed and desired further education.

II. Free evening schools established by benevolent societies for the benefit of the poor. The limits of this period are indefinite. There are traces of it even in the early part of the eighteenth century in the schools for slaves, but it may be said properly to have extended from 1820 to 1840 or 1850. It was the same general movement which introduced the Sunday school in 1791, and later, and which in New York and Philadelphia brought about the establishment of free public schools. This period extends to the time when evening schools were established and conducted by the public school authorities. This time is of course different for different cities.

III. Free public evening schools. This period begins with their establishment by the public school authorities and continues to the present time.

This sketch will be confined largely to the first two periods, for the reason that these are the periods about which so little has been written.

1. PRIVATE EVENING SCHOOLS.

New York.—The first mention of evening schools that I have found is in the agreement with a teacher for Flatbush in 1681. This was a school conducted under the direction of the Dutch Church, and supported partly by tuition fees and partly by a general appropriation. The teacher was Jan Tiebaut. That there was an evening session as well as one in the morning and one in the afternoon is shown (1) by a specific reference to the conduct of the three sessions, and (2) by the regulations in regard to the tuition fees of the day school and of the evening school.[a] A similar agreement was entered into the next year. It is possible that the evening session was recognized as a regular part of the work of this school for some time previous to this agreement, for the school had been in existence since 1650.

The first private evening school mentioned in the records for New York City is that taught or proposed to be taught by James Lyde in the custom-house in September, 1730. It was a "mathematical" school, and included such subjects as "arithmetic in all its parts, geometry, trigonometry, navigation, surveying, gauging, algebra, and sundry other parts of mathematical learning."[b] Private evening schools seem to have had their greatest development in the beginning of the nineteenth century. In 1823 the Public School Society passed a resolution permitting their teachers to hold evening schools in the school buildings at their own expense. These were not free schools, tuition fees being charged.

New England.—In New England the first mention found of a private evening school was a notice in the Boston News Letter of one kept by Mr. Samuel Granger, in Boston, in 1724. He taught "writing, accounts, and the mathematics."[c] From 1750, at least, there are evidences that private schools where instruction was given in the evening were not at all uncommon. Scattered notices in the town records and the selectmen's minutes of Boston and Salem refer directly to such schools, and other indirect references are found. These schools were especially common from 1780 to 1815 or 1820. In Dorchester a school for apprentices in the paper mills and "other studiously inclined boys" was kept by Samuel Crane from 1790 to 1797.

[a] Daniel J. Pratt: Annals of Public Education in New York, p. 67.
[b] Ibid., p. 123. (Advertisement in New York Gazette, Aug. 31–Sept. 7, 1730.)
[c] Drake: History and Antiquities of Boston, p. 596.

He also kept a day school. There is no indication whether tuition fees were charged or not, but it was probably not a free school.[a]

Pennsylvania.—There is a record of an evening school in Germantown in 1702, which was kept by the learned Pastorius "for such as could not attend the day school." This was continued for several years.[b] A night school is mentioned as having been conducted in Philadelphia in 1751, in which, besides the ordinary subjects, "geometry, navigation, and mensuration" were taught.[c]

From these references it seems altogether probable that private evening schools were quite common in New England, New York, and Pennsylvania, at least during the latter part of the eighteenth century and up to 1820. Some of these were for apprentices and all were for working people. Very early in the nineteenth century, then, the idea of evening instruction was a familiar one, and the fact that there were many who needed such training was known. Public school buildings were in several instances used for this purpose, and the people seemed to realize somewhat the importance of such training.

II. FREE EVENING SCHOOLS FOUNDED BY BENEVOLENT SOCIETIES.

Schools for slaves.—Probably the first free evening schools in the country were established for slaves and other negroes by the Society for the Propagation of the Gospel. One of these was started in Staten Island in 1715. From that time on others were conducted both in Staten Island and New York.[d] In 1787 the Manumission Society also maintained schools for negroes in New York.

In Philadelphia work among the negroes was prosecuted largely by the Society of Friends. In 1789 the Society for the Free Instruction of the Black People conducted an evening school for adult negroes. This school continued with some interruption up to 1835 or later. Other societies of Friends established schools of the same kind.[e] The success of these schools undoubtedly had an influence on the opening of free evening schools for whites. In some cases the same societies conducted evening schools for adult whites and adult negroes.

New England.—In Salem, in 1774, there was a school conducted under the charge of the selectmen and paid for out of the interest on money previously given for the support of schools or for the tuition of poor children. In this school 12 boys were to be instructed

[a] A. W. Brayley: Schools and School Boys of Old Boston, p. 24.
[b] Wickersham: History of Education in Pennsylvania, p. 222.
[c] Ibid, p. 278.
[d] Daniel J. Pratt: Annals of Public Education in New York, pp. 98, 112.
[e] Wickersham: History of Education in Pennsylvania, p. 251.

free of charge on three evenings of the week.[a] This, so far as I have been able to find, was the first evening school which was in any way connected with the public schools and supported by funds which could be called public money or school money. It will be noted, however, that even this was more an affair of charity than an attempt to establish free evening schools for all boys who were at work.

The beginning of the real philanthropic movement in Boston and Salem seems to have been about 1810 or a little later. In 1814 and 1815, two charitable schools for girls were founded by an association of young women in Salem. In 1816 Sunday schools were first introduced in Boston, and for a time these gave instruction to poor boys and girls in reading and writing. These, while not evening schools, served to call the attention of the public to the need of instruction for boys and girls at work. Very soon serious objection was made to such secular instruction on the Sabbath and other time had to be found for it. It is probable that this helped to pave the way for evening schools later.

In 1823 the selectmen aided the cause of evening schools by appropriating $75 for such a school for young men over 15 years old. Mr. Hood was the teacher.[b] There is nothing to indicate that this was considered in any way a part of the school system. It was merely helping along an effort that was considered worthy. From this time up to the time when evening schools were formally established such work was mainly conducted by philanthropic and religious agencies. In 1836 Warner Street Chapel in Boston opened a free evening school which continued for twenty years at least, and was very successful. Several other schools were conducted by religious agencies during the same period. In 1856 the number in attendance on these schools was not far from 2,500. During a part of this time at least (the exact time could not be definitely ascertained) the city gave half the proceeds from the city hay scales to these schools. This amounted to about $1,200 per annum.[c] In Cambridge the school committee assumed the expense of warming the rooms, while all other expenses were borne by individuals. In Salem the city missionary provided free evening instruction in 1847, and the next year a number of people contributed to its support. This school continued for some years and received a contribution of $300 from the city treasury in 1850. In 1854 the school was maintained one year at the charge of the city, but seems to have been given up after that time.[d]

[a] J. B. Felt: Annals of Salem, Vol. I, p. 452.
[b] Ibid., Vol. I, p. 471.
[c] Twenty-fifth Report of the Mass. Board of Education, 1861, pp. 76–77.
[d] Osgood and Batchelder: Historical Sketch of Salem, pp. 106–107.

By an act of the legislature of Massachusetts approved March 29, 1847, permission was given to cities and towns to appropriate money for the support of schools for the instruction of adults in reading, writing, English grammar, arithmetic, and geography.[a] In this act no mention is made of the time of day when such instruction should be given, and there is nothing to indicate whether it was intended to apply this to evening schools or not. It is evident that the city authorities of New Bedford thought that it did so apply, for in December, 1848, two evening schools for adults were opened, after a thorough canvass of the situation by a special committee. Money was appropriated for these schools from the regular funds.[b] Worcester opened three evening schools in 1849, which were also supported by public money.

The experience of Lowell, however, shows that the act in question did not completely establish the legality of the expenditure of public money for evening schools. In 1851 the city council of Lowell appropriated $50 to aid the city missionary association in maintaining evening schools. Similar appropriations were made for several years, and in 1855 the sum of $500 was appropriated for the support of these schools. The opposition to this was so strong that an injunction of the supreme court was obtained, which stayed the payment of the money appropriated.[c] The matter was definitely settled in 1857, when an act of the legislature formally authorized the payment of money for the maintenance of evening schools.

It was some years before the attempts to establish them in Boston and Salem were successful. In Boston six schools were opened under the charge of a special committee in 1868, and the next year they were formally incorporated into the school system.[d] In Salem the evening schools were finally taken over by the city in 1869.[e] The history of the movement in Boston and Salem is largely duplicated in the other cities of New England. In nearly all cases the schools were first conducted by religious or philanthropic agencies, then aided by special appropriations from the city, and finally taken over by the city. The dates when these schools were first made a part of the school system are here given for some of the more important cities: Providencce, R. I., 1849; Springfield, about 1850; Fall River, 1858; Lawrence and Lowell, 1857.[f]

Pennsylvania.—The first indication of this movement in Pennsylvania might be said to be in the industrial evening school con-

[a] General and Special Statutes of Massachusetts, 1847, chap. 137.
[b] School Report, New Bedford, Massachusetts, 1848–49, p. 14.
[c] Evening Schools of Lowell, Massachusetts, 1905.
[d] Report of Boston School Committee, 1868 and 1869.
[e] Osgood and Batchelder: Historical Sketch of Salem, p. 107.
[f] Twenty-fifth Report of Massachusetts Board of Education, 1861, pp. 78–86.

ducted by the Moravians at Litiz, in 1754. Here boys who were employed during the day were taught "some useful knowledge" three evenings a week.[a]

In 1799 the young men who afterwards founded the Philadelphia Society for the Establishment and Support of Charity Schools conducted evening classes for apprentices, clerks, and others.[b] It is evident from this account that some young ladies were also conducting some sort of evening schools among the poor at the same time. The schools for adult negroes and whites have been mentioned already, and it is probable that other societies had schools for whites as well as negroes.

About 1847 the Missionary Society of the Church of the Atonement, in Philadelphia, conducted the Logan Evening School. This had in 1850 an enrollment of 216.[c] In 1850 the city appropriated $2,000 for the establishment and support of free evening schools, and from that time they have been conducted by the city.[d]

New York.—The beginning of the philanthropic movement in New York dates from about 1830. The records of the Public School Society show numerous requests for the use of the public school buildings for free evening schools. These requests came from private citizens and associations of men. In nearly every case they were granted.[e] The need for such schools was so great that soon after, in 1833, the Public School Society undertook the work, and opened four schools for apprentices and others. They were quite successful and were conducted for several years thereafter. But owing to the fact that the day school teachers were required to teach the evening classes also and without additional pay, there were lack of interest and considerable objection on the part of the teachers. There was also some doubt about the right to expend public money for such schools, and in consequence they were discontinued. These schools were free and quasi public; the money used for their support was taken from the general fund of the society, which was made up in part of public money and in part of gifts and bequests.[f] After this time there seem to be no records of evening schools until 1847. They may have been continued, supported by philanthropic agencies.

In 1847, at the urgent solicitation of the board of education, the legislature passed a law empowering the board to conduct evening schools for males and authorizing the expenditure of $6,000 per

[a] Wickersham: History of Education in Pennsylvania, p. 155.
[b] Scharff and Wescott: History of Philadelphia, p. 1473.
[c] Report of the Logan Evening School.
[d] Report of Board of Education of Philadelphia, 1850.
[e] Bourne: History of the Public School Society, p. 614.
[f] Ibid., p. 615.

annum for this purpose. Acting on this authority, the board opened six schools in November, 1847. These were in charge of a special committee on evening schools. They were kept open for a term of seventeen weeks and had an enrollment of 3,224. Admission was refused to hundreds. Thirty-one teachers were employed.[a] In 1848 the legislature authorized the opening of evening schools for women and girls and allowed an expenditure of $15,000. This greatly increased the usefulness of the schools and their development was very rapid.[b] Evening schools were also authorized in Brooklyn by the law of 1850.

Baltimore.—In Baltimore the general process of development was much the same as that in New York. The philanthropic movement for education was very strong from the beginning of the nineteenth century, and many free day schools were established by such agencies. No positive record of free evening schools during this period has been found. However, in 1840 the board of education organized six evening schools for apprentices and other young men. These continued through 1843 and were then discontinued. The reasons given by the board were (1) want of patronage, (2) expense, (3) application of the means for education of apprentices that ought to be used for the instruction of younger pupils. In 1856 they were again resumed.[c]

III. FREE PUBLIC EVENING SCHOOLS.

There were at least two other places where evening schools were established very early, namely, Louisville, Ky., and Cincinnati, Ohio. Neither of these places seems to have passed through the stage of benevolent control of evening schools, although it may have done so. Not being bound down by traditional policies in educational matters, they responded more quickly to new ideas.

Louisville.—Louisville is one of the numerous claimants for the "first night school taught in the United States," or, at least, the first public night school. In the case of Louisville, the claim is supported by Barnard and more recently by Dexter, who says: "What seems to have been the first evening school in the country in any way connected with public education or having any bearing upon its subsequent development was opened in Louisville, Ky."[d] The history of this school is given in the Report of the Louisville Board of Education for 1897, on pages 147–150. It appears that in November, 1834, following the direction of the city council, an evening

[a] Report of Board of Education of New York City, 1847.
[b] Emerson A. Palmer: New York Public Schools, pp. 135–136.
[c] Report of Board of Education, 1869, p. 335.
[d] Dexter: Education in the United States, p. 540.

school was opened. The majority of the pupils were apprentices; there were 22 enrolled. This school was continued for two years only, during 1834–35 and 1835–36. It was not reopened until 1842, when two schools were conducted for one year. The next record of a public evening school is in 1859, when two or three such schools were opened. In the fall of 1860 the board refused to reopen them and they were not reestablished until 1873. They continued from 1873 to 1876, were discontinued until 1882, and have been continuous ever since the latter date.

The claims of Louisville to the "first night school" and to the "first evening school in the country in any way connected with public education" will not stand. The school conducted in Salem, Mass., in 1774 was connected with the public school system, and certainly that conducted in New York by the Public School Society from 1833 to 1836 was not only connected with public education, but at least in part supported by public funds raised by taxation. But the importance of these early beginnings in Louisville can not be doubted.

Cincinnati.—The founding and development of evening schools in Cincinnati is of especial interest. Section XVI of the act passed by the State legislature of Ohio March 16, 1839, is as follows: "That in all districts composed in whole or in part of an incorporated town, city, or borough it shall be the duty of the directors to provide a suitable number of evening schools for the instruction of such male youth over 12 years of age as are prevented by their daily avocation from attending day school; which schools shall be subject to such regulations as the directors from time to time may adopt for the government thereof."[a] This, so far as I can determine, is the first State law in regard to evening schools. In accordance with this act there were opened in Cincinnati in November, 1840, three evening schools. As there were only three teachers, it might be better to call them classes. These schools had a fairly continuous existence, being in session all but one year up to 1861. In 1855 schools for girls were also opened.

So far as I can learn, no other city in Ohio opened evening schools in accordance with the regulations of this law. When the common schools were reorganized in 1853 it was no longer made obligatory to provide such schools, but was left to the discretion of the school boards.

Other cities opened evening schools about this time or a little later. Pittsburg had them in 1856, and how much earlier I can not determine. San Francisco established them in 1856, St. Louis in 1859, and Chicago in 1862. In 1859 New Bedford, Mass., conducted even-

[a] Acts of a general nature passed by the thirty-seventh general assembly of Ohio at its first session. Columbus, 1839, Vol. XXXVII, pp. 64–65.

ing schools in which seven teachers were employed. When the city first established these I can not learn. In New Orleans there were such schools as early as 1859 or 1860, but they were discontinued soon after. Thus we see that in 1860 there were at least fifteen cities where evening schools had been conducted as a part of the public school system and probably there were more than these. In fact, nearly all the larger cities were entirely familiar with the idea of such schools and of the use of public school money for their support.

Concerning the third period of development, it is not necessary to give details. The growth has been very great not only in the enrollment, but in the number of cities conducting such schools. There are no complete records of attendance in the evening schools for the United States as a whole. The data given in the reports of the Commissioner of Education are not complete.

Thirty-two cities reported evening schools in 1881, 165 in 1900, and 180 in 1905.

The total enrollment in the schools reporting was 150,770 in 1890, 203,000 in 1901, and 292,319 in 1905.

The actual number enrolled in all evening schools is undoubtedly much in excess of this. These schools are gaining recognition more and more as essential parts of the educational system. In 1905 at least nine States recognized evening schools in their child-labor laws, making it unlawful to employ any child under 16 years old who can not read or write English unless he attends an evening school, where there is such a school, or some other school.

In 1883 Massachusetts passed a law compelling towns having 10,000 inhabitants or over to maintain elementary evening schools. Connecticut also has a similar law. Since 1886 in Massachusetts cities having 50,000 inhabitants or over have been under obligation to support an evening high school upon the petition of 50 or more residents over 14 years old who desire to attend.[a] In Indiana all cities of 3,000 inhabitants and over must conduct evening schools on petition of 20 or more citizens.[b] In New Hampshire all towns of 5,000 inhabitants or over are compelled to establish evening schools on petition of 5 per cent of the voters. In Pennsylvania cities must conduct such schools on petition of 20 or more parents of children 6 years of age and older. In Ohio, Louisiana, and Georgia permission is directly given to conduct such schools, and in several other States it is implied.

The later tendencies in the evening school movement which are especially significant are in the direction of the establishment of

[a] Dickinson: Mass. Public School System, p. 7.
[b] School Laws of Indiana, 1904, p. 135.

evening high schools and the introduction of trade or industrial work into such schools.

IV.—EVENING HIGH SCHOOLS.

While the first movement for evening schools was undoubtedly toward giving those who lacked the rudiments of education the opportunity to acquire them, there was very early a tendency manifested in some cities in the direction of affording means of further education to those who were studiously inclined and ambitious to improve themselves. The earliest indication of this was in the city of Cincinnati. As early as 1828 the Ohio Mechanics' Institute conducted lectures and classes in botany, chemistry, mechanics, geometry, and arithmetic. Apprentices and minors, sons of members, were entitled to attend these classes on payment of 50 cents per annum.[a] This was not really a high school, but a school of science, and was not entirely free, for a small fee was charged and the membership limited to certain classes of people. Nevertheless, it undoubtedly had a strong influence on the establishment of an evening high school.

In 1841, and possibly earlier, the trustees of Woodward College and High School, then a private endowed institution, conducted evening classes in the college rooms, in which were taught "mercantile arithmetic, bookkeeping, algebra, geometry, architectural drawing, plane trigonometry with its applications, surveying, mensuration of planes and solids—particularly of carpenters', painters', masons', and bricklayers' work, etc." These classes were organized for young men who were at work during the day. "Nearly 80 young men are thus accommodated, and no charge made to those who are engaged in labor or business during the day;" others paid tuition fees.[b] These classes were not connected with the public school system, but they exerted a wider influence than the classes of the Mechanics' Institute. The curriculum was not a copy of that of the day school, but showed a strong tendency toward science and to minister directly to the practical needs of the pupils reached. This "college", or academy was in 1851 merged into the public school system, its endowment going to support high schools and itself becoming the Woodward High School.

These two evening schools undoubtedly had a strong influence on the establishment of what is almost certainly the first free evening high school conducted and supported by public school authorities in this country. This was opened October, 1856, in Cincinnati, thus antedating the one in New York City by ten years. A preliminary examination in elementary subjects was required and a three-year

[a] Charles Cist: Cincinnati in 1841, pp. 128, 132.
[b] Ibid., pp. 258–259.

course laid out. The first year there were 108 in attendance, all in the lowest class, besides some others in a preparatory class. The studies pursued in the lowest class were algebra, geometry, bookkeeping, drawing and design, and vocal music.[a]

In New York City, Assistant Superintendent Jones recommended in 1864 that an evening high school be established. This was done in October, 1866. This school was the first public high school of any kind in New York City, the day high schools not having been established until many years after. Candidates were required to pass a preliminary examination in elementary subjects. The curriculum included English grammar and composition, reading and declamation, penmanship, bookkeeping, arithmetic, algebra, geometry and trigonometry, natural philosophy, chemistry, astronomy, American history and political science, architectural and mechanical drawing, practical mechanics and navigation, besides French, Spanish, and German, if a sufficient number applied.[b] This school was successful from its opening and has had a continuous existence. In 1888 it was removed to grammar school house No. 26 on West Thirtieth street. In 1877 the number examined for admittance was about 3,500, and the number passed about 1,800. No other evening high school was opened until 1887. Since that time others have been established. In 1900–1901 there were six evening high schools in Manhattan and the Bronx and two in Brooklyn, and in 1904 there were ten in Greater New York.

An evening high school was first opened in Chicago in 1868. The same year, the O'Fallon Polytechnic Institute was established in St. Louis. This took the place of an evening high school and is at present classed as such, although it was not a duplicate of the day high school, but rather aimed at more practical training. The same may be said of the Artisans' Night School opened in Philadelphia in 1869. Its aim was "to supplement an elementary education by such higher instruction as might be of practical service to the students in their various lines of work." It included in its curriculum mechanical and engineering drawing and steam engineering, as well as geometry, physics, and chemistry. Gradually elective courses were introduced, and in 1898 its name was changed to the Evening High School.[c] Boston established an evening high school in 1870.

We see, then, that in 1870 there were at least five public evening high schools, or what may be called such. In 1903–4, according to the Report of the United States Commissioner of Education, there were 32 cities in which evening high schools were conducted; there were 59 schools, 426 teachers, and the total enrollment was 40,568.

[a] Report of the Board of Education of Cincinnati, 1856–57, pp. 11, 12.
[b] New York Public School Report, 1866, pp. 27, 28.
[c] Report of the Board of Education of Philadelphia, 1904, pp. 70–73.

These high schools are not by any means of the same grade, the variation being much greater even than in the day high schools. They all very nearly agree, however, in the ages of the pupils received, the majority being of high school age—between 14 and 20. Some give very elementary work, while some few are real high schools, recognized as being on a par with the day high schools organized in courses leading to a diploma. In the majority of these schools there is a distinct tendency toward the more useful subjects, although the studies included in the curriculum of the day high schools are not neglected.

V. TRADE AND TECHNICAL INSTRUCTION IN EVENING SCHOOLS.

In some ways the most significant movement in the evening school field is the effort to minister more directly to the material needs of the pupils by means of trade or technical instruction. Probably the first evening work of this kind was that in mechanical and architectural drawing given for the benefit of apprentices and others and inaugurated by the various mechanics' institutes and like organizations. Of these, Franklin Institute in Philadelphia had evening classes in 1824, Ohio Mechanics' Institute in Cincinnati in 1828, Maryland Institute for the Promotion of Mechanic Arts in Baltimore in 1847, and the Mechanics' Institute in New York City in 1859. These are a few of the more important efforts chiefly on the part of labor organizations to provide industrial or technical instruction supplemental to the shop training of apprentices.

It is not certain when work of a technical character was first introduced into the evening schools, but it is worthy of note that there was a tendency in this direction in the curricula of four of the high schools first established, namely, those in Cincinnati, New York, St. Louis, and Philadelphia. This is indicated in the names of two of them, that of St. Louis being called the O'Fallon Polytechnic Institute, and inclining toward sciences and technical work, and that in Philadelphia, the Artisans' Evening School. It is not improbable that this fact shows the influence of the industrial elements in the Lancastrian schools. Most of these first schools lost some of their technical character later, or rather the technical and industrial parts of the curriculum were overshadowed by the traditional courses later introduced. This was due in some measure to the fact that the teachers in the evening schools were, for the most part, day high school teachers, but perhaps more to the fact that the traditional high school course was considered the gateway to social standing and culture. Anything else smacked of servility, of a lower social order.

In 1870 Massachusetts passed a law compelling all towns of 10,000 inhabitants and over to give free instruction in mechanical and industrial drawing to persons over 15 years old either in day or evening

schools.[a] In 1872 permission was given to any city or town to establish and support industrial schools in which instruction might be given in the arts and in the various trades and occupations. Attendance upon these was not to take the place of the regular day school attendance required by law.[b] These two laws did much to influence the character of the instruction in evening schools in Massachusetts, but it was not until 1898 that the permission given in the law of 1872 was taken advantage of by any city. In that year was established the Springfield Evening School of Trades. "A few weeks after the organization of the Mechanic Arts High School, now known as the Technical High School, the school committee then in power, upon the recommendation of Superintendent Thomas M. Balliet, voted to organize night classes for giving instruction in certain mechanical trades for which there was a local demand, and for which the new high school could furnish the necessary equipment and teaching force with little additional expense."[c] The object of this school, as stated in a special report of the school committee for 1903, page 3, is "mainly to give men already employed in the trades, who know, therefore, at least a part of the trade in which they are employed, an opportunity to broaden their mechanical training and make themselves more efficient workmen. It is not the function of this school to train apprentices, as such, but to supplement the imperfect and highly specialized training of modern shops by giving machine hands, helpers, and apprentices, so far as there are any apprentices, an opportunity to gain practice in a greater variety of work than would ever be open to any one man under the modern system of machine production." "The tuition in all classes is free to all persons over 14 years of age who are residents of Springfield, but a fee of $5 for materials and other incidental expenses is charged each member of the classes in machine-shop practice, in pattern making, in plumbing, and in the laboratory work in electricity." This also serves as a guaranty of good faith on the part of the pupils enrolled. Nonresidents are charged a tuition fee of from $10 to $15 per study, in addition to the incidental fee. The studies pursued include mathematics, mechanical drawing, electricity, plumbing, pattern making, machine-shop practice and tool making, and woodworking and joinery.

One unusual thing about this school is that it is not called an evening high school, nor does it make any pretensions to such a character. The pupils are older than in the ordinary schools, the average

[a] 34th Report of Mass. Board of Education, 1870, p. 143.
[b] 36th Report of Mass. Board of Education, 1872, p. 181.
[c] Letter of Charles F. Warner in Report of Mass. Commission on Industrial and Technical Education, p. 178.

age in 1902 being 23.7 years, more than half being over 21 years old. Candidates are not excluded on account of lack of preparation in elementary subjects. So far as can be learned, this is the only school of its kind. It has not incurred the enmity of the labor unions because it admits only those actually at work, i. e., it aims to increase the efficiency of those who are at work instead of increasing the number of workers. The school seems to be increasing in popularity, and is doing splendid service.

The idea of utilizing the equipment of mechanic arts and technical high schools for evening instruction is gaining headway in our larger cities. New York City has two such evening schools, and Chicago, Boston, Philadelphia, Pittsburg, Buffalo, and Indianapolis are each conducting a school of a similar kind. These are not so distinctively trade schools as that in Springfield, but they give good courses in technical and industrial subjects. Philadelphia is about to open an evening trade school for those employed during the day. The thirteen courses already decided upon are: Printing, house and sign painting, pattern making, carpentry, electrical construction, machine drawing, architectural drawing, plumbing, plastering, bricklaying, steam fitting, sheet-metal work, and blacksmithing. Requirements for admission are to be about the same as for entrance to the high school. The two schools conducted in New York City are the Trade School in Long Island City and the Technical and Trade School in Brooklyn. Admission to these classes is restricted to those who are not in attendance at a day school and who are employed during the day in some regular occupation. Candidates are not required to be graduates of an elementary school. The sessions are from 7.30 to 9.30, four evenings a week.

The subjects taught in the Brooklyn Evening Technical and Trade School are as follows: Carpentry and joinery, cabinetmaking, pattern making, blacksmithing and tinsmithing, plumbing, machine-shop work, printing and typesetting, mechanical drawing, machine design, electrical and steam engineering, electric wiring and installation, industrial chemistry, applied physics, bookbinding, advanced dressmaking, millinery, and domestic science. The school in Long Island City does not offer so many courses, but is conducted in connection with the evening high school.

There can be no doubt of the popularity of these schools. They are filled to overflowing, and the interest manifested is very great. Here the pupil is able to obtain something tangible in the way of assistance in his particular occupation. The help received represents increase in wages and higher position. The pupil is able to secure a general knowledge of plumbing, for instance, which it is impossible for him to obtain as a plumber's helper.

These schools have not been in operation long enough to judge of their ultimate success, but they have already demonstrated the fact that not only is there great need for such schools, but that many are eager to take advantage of the opportunity thus offered. The aim of these schools is to make better workmen, and little attempt is made to secure general training. Whether the latter can be effected in connection with the special work, or whether it would be wise to attempt such a combination, can be determined only by actual experiment.

VI. CONDITIONS PREJUDICIAL TO THE EFFECTIVENESS OF EVENING SCHOOLS.

Hours of instruction.—The amount of time given to instruction in the evening schools is, of course, not comparable to that in the day schools. The usual time is 2 hours per evening for 4 evenings a week, and 20 weeks a year, making a total of 160 hours altogether. The variability is very great, however. In a few schools the evening session is only 1½ hours long. The number of evenings per week varies from 2 to 5, while the number of weeks per year varies from 10 or less to 32 or even somewhat more. So that in total available hours of work the range is from about 25 or 30 per year to 250 or 275. Compare this with the 900 to 1,200 or more hours in our day schools and the maximum amount of training received in the evening schools seems small, indeed. Add to this the fact that the pupil in the evening school has practically no time to study outside of school hours, that he comes to his work tired and often apathetic, and we begin to realize how meager are the educational opportunities for our young people who are at work.

Attendance.—Our evening schools have many difficulties which hinder effective work. One of the greatest of these is irregular attendance. The per cent of attendance on the total enrollment is very low, ranging from about 20 to 60 or a little over. At best, the attendance in evening schools can never be as good as that of day schools. The boy or girl at work is often too tired to attend; often, at busy seasons, they are compelled to work overtime and are thus kept away. The attraction of parties, theaters, and lectures is very often sufficient reason for nonattendance. The main business of the pupil is his occupation; the school is an extra and does not absorb his interest to as great an extent as is the case with the pupil in the day school. Various methods have been employed to counteract this irregularity. One that is often tried and has been very successful is that of charging a nominal tuition fee, $1 or more a term. This is refunded at the end of the term in case of a certain per cent of attendance. In Württemberg and Saxony no trouble of this kind is experienced, for not only the enrollment, but the attendance as well, are in the hands of the police and are carefully enforced. In Eng-

land, where attendance is voluntary, the same trouble is experienced as with us. It seems that the only solution for this difficulty will be in making the evening work so practical, so vital to the interests of the pupils, that it will compel attendance. No system of compulsory attendance can possibly have as much influence as the proper adaptation of the work to the needs of the pupils.

Teachers.—Another difficulty is the want of proper teachers. At first it was considered that anyone could teach in the evening school. As a consequence, clerks, young lawyers, students, and others were employed. Experience has shown that evening school work requires the very best teachers. Many who are successful in day school work are totally incapable of interesting the pupils in the evening schools. The two situations are not at all the same. The majority of evening school teachers at present are teachers in the day schools, and will continue to be such for some time to come. There is, however, a growing demand for specially trained teachers for this work. Not only are the best of the day teachers demanded, but even these are not sufficient. The teacher of the coming evening school must be one who has made in his own life a practical application of what he teaches, and who can make his pupils see that application. Abstract work is giving way to concrete applications. The pupils who attend these schools have their dominant interest in concrete realities, and the teacher must be able to show the application of the abstract principle to the everyday work of the pupil.

VII. CLASSES OF PUPILS.

There are several more or less distinct classes of pupils in the public evening schools as at present constituted, as follows:

I. Those who are deficient in the rudiments, or who have not had an educational equivalent to that of our elementary schools. The great majority of the pupils are of this class, probably fully 85 per cent of the total number. In the philanthropic period, the evening school movement was entirely concerned with these. When we come to examine this class, however, we find it by no means homogeneous. It is composed of native Americans and of foreigners, and the needs of these are not always the same.

Among the native Americans there are (1) those who are below the average in intellectual ability, those who were dull in school, who fell behind and dropped out, and (2) those of average intelligence who were compelled on account of poverty to leave school and help in the support of the home. Among these may also be classed the "misfits," who for various reasons, on account of poor teachers or lack of sympathy, etc., left school early. The former class will not attend the evening school to any great extent except on compulsion,

the latter are more ambitious and ready to take advantage of the opportunities offered.

Among the foreigners two classes are very distinctly marked off—the illiterates, who not only do not know English, but have had practically no education at all, and those who are more or less educated. Many of the latter have received a liberal education in their own country, but on account of inability to speak and write English are at a great disadvantage. For these the evening schools are not only a means to a respectable livelihood, but, what is most important, a means to an understanding of our customs and of the duties of citizenship; in other words, a means of readjustment to new conditions. The per cent of foreigners in our evening schools varies greatly. According to the Report of the Commissioner of Education, 1904 (p. 1306), the per cent of foreign-born pupils in the evening schools of four cities is: Chicago, 61.3; New York, 30.2; Philadelphia, 28.4; Jersey City, 26.8. In addition to this, the number born here but of foreign-born parents would swell the total per cent of those who could be classed as foreigners. In Chicago the foreign-born pupils and those of foreign-born parents are about 83 per cent of the total enrollment.

II. The second main class found in our evening schools is made up of those young people who have passed through the elementary grades, and some even partly through the high school, and who wish to continue their education. The foreign element in this class is not so large. For these the evening high school was established and has proved very satisfactory. The young people in these schools are above the average in intelligence. They represent the brighter element of those who drop out of the day school; they are ambitious and eager for further work; they are future leaders and will well repay any effort to train them. Here is to be the great work of our evening schools for the future.

The needs of this class are as varied as their occupations. Some look forward to college or university work, and for such a duplication of the courses of the day high school is given. There is a larger part, however, who do not wish this, but desire to prepare themselves for higher positions, for greater efficiency in the occupations in which they are engaged. From these there has come an increasing demand for technical and trade work, and it is very largely this class which is found in our few evening trade and technical high schools.

III. There is a third class, not entirely distinct from the second, consisting of men in business who wish help along special lines. These are the men who make up a considerable part of the pupils in Young Men's Christian Association classes. As yet there are very

few in the public evening schools, except such schools as the Evening School of Trades, in Springfield, Mass.

IV. Finally, there is a general class, including many of the others mentioned, but whose need is more general. They are "clubable" men and women who lack opportunities for helpful social intercourse. For these the public lecture courses, recreation centers, etc., which are found in increasing numbers in our larger cities, are the chief means of help.

VIII. PROSPECTIVE DEVELOPMENT.

It is impossible to estimate properly the influence of the public evening schools, or even to predict the scope of their future usefulness. As first organized, they were attempts to give the benefits of the day schools to those unfortunates who had not been able to obtain an elementary education. They are now showing signs of better adaptation to the needs of the particular classes which they are designed to reach. The close adaptation to the needs of a locality, shown in the German Fortbildungsschulen, we are beginning to see in our own evening schools. The movement once begun is sure to spread and take firm hold of our educational system. As we have seen in a previous section of this work, their quantitative influence is still very slight. The great mass, not only of the illiterate, but also of the young working men and women who desire help in further work, is still scarcely touched. Only in a comparatively few cities are the facilities at all adequate. Could we obtain data for the United States as a whole, we would see how poor a showing we would make in this direction when compared with Germany and England.

The need for such work is just beginning to be felt, the problem has just presented itself. Our cities have grown so rapidly that it has been almost impossible to keep up with the educational needs of pupils in the day schools, and very little attention has been given in the country as a whole to other fields of effort. The educational horizon is, however, steadily enlarging, and educators as well as business men and working men are beginning to see that a system of education which provides opportunities for a limited class after the age of 14 is not only narrow and inadequate, but inimical to the ideals of democracy. People are beginning to feel that, if public high schools are supported by taxation, if opportunity for a certain kind of training is given to a small per cent of young people at public expense, equal opportunity should be given to those who are not able to take advantage of the day school, and this also at public expense. It is seen to be sheer waste to allow such expensive plants as our school buildings to remain inactive and unused a large part of the available time. They are paid for by the public funds, and the public is entitled to the maximum amount of good from them.

These considerations are gradually becoming more and more prominent, and will inevitably result in a large increase in the number and efficiency of the evening schools. Although these schools are, as yet, inadequate and ill adapted to the needs of the pupils, they are at least fully established as an integral part of our educational system. It remains to be determined what their scope shall be, and how far they can profitably be utilized in the education and training of the "out-of-school."

B. YOUNG MEN'S AND YOUNG WOMEN'S CHRISTIAN ASSOCIATION CLASSES.

The Young Men's Christian Association stands, according to its declared purpose, for the all-round development of the individual; the three sides of its emblem, the triangle, symbolize the physical, the mental, and the moral life which are to be developed side by side. Although beginning in this country in 1851, it is distinctly a movement of the last quarter century. At first its conception of service to young men was comparatively narrow. Its purposes were two—first, to afford an opportunity for Christian work to Christian young men, and, second, to convert men to Christianity. All its efforts, educational and other, were directed to this end. The attitude for a considerable period was, in the words of President Carroll D. Wright, "We do not really help you intellectually (and physically) because your need and our Christianity compel us to do it, but because we hope that by doing this we may make a Christian out of you." Gradually this view of Christian service has been changed, and now there is seen its true spirit, which says, "We are glad to extend this service to you, and would also like to help you spiritually if we can."[a]

One of the strongest features about the educational work of the Young Men's Christian Association is that it is conceived broadly. Class work, libraries and reading rooms, literary societies, and other social gatherings are conducted side by side, in addition to the gymnasiums with their expert physical directors. As now conducted, they contain the best features of young men's clubs, but are conducted on a high plane and among surroundings calculated to elevate the moral tone. From the first educational features were prominent, but there were very few evening classes. For some time Greek was the most popular subject studied, showing the character of the young men who attended. The educational features received little encouragement until the conventions of 1887 to 1891. From that time the advance has been very rapid, especially along the line of evening classes. Bound by no traditions of educational policy and actuated

[a] Annual Report of Educational Department of Young Men's Christian Association, 1905, p. 41.

only by the desire to be of service, the association has responded to the needs of young men to an unusual degree. The history of this movement is given in detail in the volume entitled "Jubilee of Work for Young Men in North America, 1901."

Some idea of the growth of the number enrolled in class work may be obtained from considering that in 1891 there were in all North America between 10,000 and 12,000 students enrolled; in 1900 there were 26,906, and in 1905 there were 33,520. In addition to these there were many in attendance at various educational clubs and literary societies and many more who used the libraries and reading rooms.

The development in the kind and number of subjects taught is one of the best indications of the way in which the educational work of the association has adapted itself to meet the needs of young men. In 1860 the main subjects taught in the few classes then conducted were music and Greek. A little later arithmetic, drawing, and bookkeeping were introduced. In 1905 there were 26 subjects in which regular examinations were given, and many more in which examinations were not given. In the West Side branch of the Young Men's Christian Association, of New York City, where perhaps the greatest development along this line has been attained, there were in the season of 1905–6, 63 different courses given. The general scope and variety of these can be seen from the following list, which includes 38 different subjects:

ART AND INDUSTRY.

1. Architectural drafting.
2. Applied electricity.

Interior decorating and furnishing:

3. I. Color and form harmony.
4. II. Period decoration.
5. III. Drawing and design.

Automobile school:

6. I. General lectures.
7. II. Garage laboratory work.
8. III. Road work.
9. Machine design.
10. Mechanical drawing I.
11. Mechanical drawing II.
12. Plan reading and estimating.
13. Printing and publishing.
14. Steam engineering I.
15. Steam engineering II.
16. Structural engineering I.
17. Structural engineering II.

BUSINESS, COMMERCE, AND FINANCE.

18. Commercial arithmetic III.
19. Correspondence.
20. Penmanship.
21. Spelling.
22. Elementary bookkeeping I.
23. Bookkeeping II.
24. Model office boys.
25. Stenography I.
26. Stenography II.
27. Stenography III.
28. Typewriting I.
29. Typewriting II.

Advanced business economy:

30. I. Executive problems.

Advanced business economy—continued.

31. II. Modern office practice.
32. III. Retail store management.
33. Business law.

Insurance:

34. I. Life.
35. II. Accident, casualty, credit.

36. Investments:

37. I. Real estate problems.
38. II. Real estate modern office practice.
39. III. Real estate law.

LANGUAGE.

40. Composition.
41. English I.
42. English II.
43. French I.
44. French II.
45. French III, for artists, musicians, etc.
46. German I.
47. German II.
48. German III, for physicians, artists, musicians, etc.
49. Italian for artists, musicians, etc.
50. Spanish I.
Spanish II.

MATHEMATICS.

51. Arithmetic I.
52. Arithmetic II.
53. Algebra I.
54. Algebra II.
55. Analytical geometry.
56. Calculus.
57. Descriptive geometry.
58. Geometry I.
59. Geometry II.
60. Trigonometry.

MUSIC AND MISCELLANEOUS.

61. First aid to the injured.
62. Orchestra.
63. Violin.

From these subjects it will be seen that the educational work reaches out in many different directions where heretofore the only training one could obtain was in the office or the shop in the midst of active work.

The subjects pursued in the Young Men's Christian Association classes are grouped under six heads: (1) Commercial, including arithmetic, bookkeeping, stenography, typewriting, business law, etc.; (2) political, including civil government, social economics, history, etc.; (3) industrial, including such subjects as drawing, carpentry, etc.; (4) scientific, including algebra, geometry, physics, chemistry, etc.; (5) language and miscellaneous, including English, German, French, etc., and music, first aid to the injured, etc.; (6) special schools, such as law, art, automobile, etc. In addition to these there is the boys' department, which offers various special courses to employed boys. While many boys are in the regular classes, there is a distinct need for such work. This department is growing rapidly.[a]

The percentages of enrollment in the different groups of studies for the years 1900, 1903, and 1905 are here given:

	Per cent of enrollment.		
	1900.	1903.	1905.
1. Commercial subjects	49	46	36
2. Political subjects	2	2	2
3. Industrial subjects	16	17	16
4. Scientific subjects	7	10	10
5. Language subjects	25	21	20
6. Boys' department	3	4	9
7. Special—law, art, automobiling, etc.	.....	.....	7

[a] Annual Report of the Educational Department, 1905, pp. 52, 53.

One feature of the association work shows how readily it adapts itself to the needs of men. In several associations, systematic instruction has been organized in the daytime for men and boys who work at night, or who for any other reason can best attend day classes. These include studies in commercial, industrial, technical, language, and college preparatory subjects. The work is largely individual.[a]

The educational activities are in the hands of the educational director when there is a director, otherwise the general secretary has charge. The associations are more and more feeling the need of an experienced head to their educational work, and practically all who are doing much along this line have educational directors. The director is responsible either to the educational committee of the local association, or to the committee of management as a whole, of which the educational committee is a part. Each association is free to direct its own classes as it thinks best.

The most powerful factor in directing and unifying the educational activities of the various associations is the educational department of the international committee. This occupies only an advisory relation, but has proved itself of great value in strengthening the work. This educational department employs an expert as secretary, who gives his whole time to the study of the educational activities and to visiting the associations. Every year the international committee publishes a carefully prepared prospectus of all courses of study, together with suggestions as to methods of improvement. In this way the efforts are unified, growth is promoted, weak associations are encouraged, and the whole work strengthened.[b]

Another agency that strengthens and unifies the work is the system of international examinations. These were conducted in 1905 in 26 subjects. The questions are carefully prepared by a board of examiners composed of men eminent in their specialties, and are given to the students under very strict regulations. The international examiners also look over and pass upon all papers. There can be no question but that the students passed in these examinations are as well prepared in the particular subjects as the majority of students in universities who pursue the same subjects. This is shown in the increasing recognition of the international certificates at their face value by the different colleges and universities. In 1898, 12 colleges and universities accepted these certificates; in 1901 the number had increased to 110, including many of the strongest institutions in the country.[c]

In 1900 the total enrollment in all classes was 20,424, and the number of international certificates won was 1,498; in 1905 the total enroll-

[a] Annual Report of the Educational Department, 1905, pp. 12, 13.
[b] Ibid, 1901, pp. 4–17.
[c] Ibid., pp. 66, 67.

ment was 43,664, the number of certificates being 1,468.[a] The decrease in the number of certificates has resulted partly from an increase in the strictness with which the papers are marked and partly from the introduction of many subjects in which as yet no international examinations are given.

Teachers.—The teachers employed are usually strong. In the smaller associations very often the ability of the teaching force is not what it should be to do effective work, but in the larger cities experts are obtained as far as possible, and care is exercised to secure those men who are vitally interested in young men in order that their example may be an inspiration to the students.

Fees.—All students are required to join the association, and in addition pay a small fee for class work. This varies in amount according to the subject, in some subjects being as high as $45 for a six months' course. The usual fee is from $2 to $4 for a three months' course.

Ages of students.—The ages of students range from 12 to 50 or 60. The average age is from 22 to 25 years, and the median age from 21 to 22 years. The students in these classes are somewhat older and more mature than those in the public evening schools, a large per cent of them being over 20 years old.

Classes of men reached.—The classes from which the men come are perhaps best shown by the occupations represented. The per cent from the different classes of occupations for the years 1900 and 1905 are here given:[b]

	1900.	1905.
Office men	20	19
Students and professional men	9	6
Clerks and salesmen	24	24
Mechanics	24	26
General tradesmen	23	25

It will be noted that in 1905 over half the men are artisans, mechanics, and general tradesmen, 43 per cent are of the office and clerical class, and only 6 per cent are students. Nearly 200 different occupations are represented. This shows how extensive is the influence of such work. Many college graduates are numbered among the students, seeking special help along lines of work in which they are engaged.

With all the many desirable features which the Young Men's Christian Association educational work has, it reaches only a small portion of the men who need such work. On page 27, where the table showing the proportion of young persons in Young Men's Christian

[a] Annual Reports of the Educational Department, 1901, p. 60; 1905, p. 53.
[b] Annual Reports of the Educational Department, 1901, p. 7; 1905, p. 29.

Association classes is given, we see what a small relative number is reached. Many of those whom it does reach receive great help, but by the very conditions under which such work is given it can not reach great numbers of men. Mr. Harrison S. Colburn, for many years the educational director of the West Side Branch of the Young Men's Christian Association of New York City, in an unpublished article on "Evening Schools," says (p. 48):

> It must be frankly admitted that as long as the membership in the educational classes conducted by the association is limited to members of the organization, and so long as it is necessary to hold a $5 annual ticket, besides paying for a class ticket (ranging anywhere from $2.50 to $5 or even $10 extra, not counting the cost of class books, which must be purchased by the men individually), it can not be said that the educational work of this institution is seeking the masses of the poor, for they can not afford to pay so much for it. The association undoubtedly appeals to a class of more or less successful young men who wish to improve their condition by study along specific lines. So it is natural that the men who make a financial outlay at the beginning of the term are not likely to drop out when the work begins to stiffen.

In other words, it is reaching a part of the class of leaders. In doing this it is rendering valuable service, but its courses are of little aid to the very poor.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION CLASSES.

The Young Women's Christian Association was founded on the same broad lines as the association for young men. Its object is "to promote the temporal, social, mental, moral, and religious welfare of young women, particularly of those dependent upon their own exertion for support." Since the character of the work of the associations for young men and young women is dependent upon their existing needs, it is inevitable that the activities of the two associations should not be exactly the same. The needs of young women in our cities are, in a sense, more varied than those of young men. There are the same general divisions of the work as seen in the Young Men's Association, including the libraries and reading rooms, the gymnasiums, the social clubs, the Bible classes, and the classes for instruction in various subjects. These latter are divided into three departments—the educational classes, classes in domestic science, and classes in domestic art.

The educational work of the Young Women's Association is not nearly so well organized or so unified as that of the young men, and no data for the country as a whole were obtainable; nor is it possible to do any more than describe it in a general way. The principal educational classes of the larger associations include those in typewriting and stenography, with English, commercial arithmetic, German and French, and domestic science and art. Under the latter head are included domestic service, dressmaking, millinery, sewing, cooking,

embroidery, etc. Comparatively little instruction is given in the regular high school subjects. The main effort is to help women who are self-supporting to become more efficient and to put within the reach of those who are not self-supporting the training which will enable them to become so.

As a result, many day classes are necessary. It may even be said that the principal work is done during the day. Adequate training in typewriting and stenography can hardly be obtained by a couple of hours' work a week, and evening classes in such branches are not encouraged. It was not possible to secure data for the evening classes separate from those for the day classes, but from the comparative numbers in a few of the associations it would seem that there are considerably more enrolled in the day than in the evening.

Applicants for these classes are not required to join the association. The tuition fee in the evening classes varies from as low as $1 or $2 per term to $18 or $20, depending on the character of the subject and the number of hours given.

The work done by the association at 7 East Fifteenth street and at the Harlem branch in New York City, is of an unusually high order, especially in the day classes. The Boston associations are also very strong. It seems probable that the character of the educational work of the larger associations is fully equal in quality to that of the Young Men's Christian Association. As yet, the educational department has not been developed generally, and does not reach as large a number as the Young Men's Christian Association. Organized effort is now being made, however, and with the more centralized administration made possible by the new National Board of Young Women's Christian Associations, this work will be greatly unified and strengthened.

C. CORRESPONDENCE SCHOOLS.

Definite attempts at instruction by correspondence are of comparatively recent date. There have been and are still many doubts in regard to the wisdom and value of such work, but at present it has attained such proportions that it must be recognized as an educational factor of considerable importance. In this country the Chautauqua Assembly inaugurated the first general movement of this kind. This became very popular and was a source of inspiration and help to great numbers. As a financial venture it was not successful, and in 1900 the correspondence school was eliminated. Several colleges and universities have conducted correspondence courses, but most of them have found instruction by this method unsatisfactory and unprofitable and have discontinued it. Chicago University alone of the larger institutions still continues the system and with a large degree of success.

In addition to the correspondence school of the University of Chicago, which is undoubtedly the strongest in many particulars, there is the institution known as the International Correspondence Schools, at Scranton, Pa., which is the largest. Other schools are conducted by Baylor University, Waco, Tex.; State Normal Training School, Willimantic, Conn.; American School of Correspondence, Boston; American School of Textiles, New Bedford, Mass., and the Electrical Engineers' Institute, New York.

The range of subjects is limited only by the demands of the students and thus includes all branches of instruction. It appeals with particular force, however, to mechanics and apprentices who are not within the reach of an evening school offering instruction in the branches which they need. The ordinary daily labor of this class does not give them the theoretical and technical knowledge necessary for higher work, and this is offered by correspondence courses. Many men engaged in the higher branches of technical and scientific labor avail themselves of their privileges and derive much benefit therefrom. Boys on the farm desiring to prepare for college or technical institutions often enroll, and by great effort are able to pass the preliminary examinations. Many teachers are greatly aided in this way. The correspondence school offers help and stimulus to any ambitious person who can not avail himself of the opportunities for instruction in some institution.

The general methods of two of these schools, the University of Chicago and the International Correspondence Schools, will be briefly described.

UNIVERSITY OF CHICAGO.

When the University of Chicago was organized correspondence work was made an organic part of the instruction. At the time there was considerable opposition, but the marked success attending it has amply justified its introduction. Such instruction appeals to the best students, those who do not need the "prodding" of the instructor to make them keep to their work. About 85 per cent of the number enrolled are teachers who wish to keep in touch with the most modern methods of work and with new investigations.

Method of instruction.—Each correspondence course is arranged to cover the same ground as the resident course on the same subject, and consists therefore of a definite amount of work. Courses are of two kinds, formal and informal. 1. Formal courses are conducted on the basis of printed instruction sheets which furnish suggestions and assistance and assign the tasks to be performed. At regular intervals the student mails to the instructor a recitation paper on which he has written out the tasks assigned in the instruction sheet, the answers to such questions as are set therein, and any questions

or difficulties which may have arisen in his study. This recitation paper is promptly returned with the errors in it corrected and with such suggestions as it may be thought best to offer. 2. Informal courses are for a special class of students pursuing work of an advanced nature. The course is carefully outlined by the instructor. In place of the lesson sheet and answers, short papers are written by the pupil or a thesis on the whole subject.

Admission.—No preliminary examination is required, but the authorities reserve the right to reject any candidate.

Recognition of work.—A certificate is granted for each course successfully completed. Such work is accepted as qualifying in part for a degree, but no degree is given for work done entirely "in absentia." A candidate must spend at least one year in resident study and secure credit for nine majors of resident work. Except in case of sickness or other serious disability, the student is required to complete the course for which he registers within one year from the end of the quarter in which he registers.

Expenses.—All fees are payable in advance. These consist of the matriculation fee of $5 and tuition fees of from $8 to $16 for each course. Text-books and postage must be furnished by the student.

Value of the work.—The testimony of the university instructors is to the effect that the students in the corresponding courses are better prepared than those who take the resident work. This is due to the fact that they represent a brighter and more ambitious class, and that the work is done independently, thus fostering self-reliance. The following tables show the courses given and general statistics for different years:

Summary of registrations, courses, instructors, etc.[a]

	1892-93.	1895-96.	1898-99.	1901-2.	1904-5.
New registrations		261	522	799	1,111
Total registrations	93	481	1,015	1,485	2,006
Courses actually given	39	97	196	217	280
Different students enrolled	82	425	845	1,249	1,541
Teachers	23	44	73	92	116
Registrations completed	4	108	282	438	585
Registrations dropped	4	89	261	338	448

[a] Report of the United States Commissioner of Education, 1902, pp. 1081–1083. (From "Announcements" of the correspondence study department.)

Statistics of instructors, registration, and credit.[a]

Departments.	Instructors.		Total registration.		Credit given.			
					Registration completed.		University credit given.	
	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
1. Philosophy	8	8	122	155	41	49	11	25
2. Political economy	4	5	29	31	6	7	3	3
3. Political science	2	1	17	17	3	5	2	4
4. History	8	8	128	172	39	63	19	31
5. Sociology and anthropology	7	6	46	33	18	7	12	5
6. Household administration		2		8		3		2
7. Comparative religion	2	2	4	2	3	1	1	
8. Semitic languages and literature	2	3	43	32	13	4	1	1
9. Biblical and Patristic Greek	6	6	90	70	16	11	2	4
10. Greek language and literature	5	5	32	35	11	7	4	7
11. Latin language and literature	3	5	174	213	70	90	27	35
12. Romance language and literature	6	8	82	108	18	39	12	18
13. Germanic language and literature	7	7	78	103	27	31	14	19
14. English language, literature, and rhetoric	12	13	581	609	161	166	41	53
15. General literature	1	1	2	2				
16. Mathematics	4	7	122	180	27	44	12	15
17. Astronomy	2	2	7	10	2	2		
18. Physics	1	1	8	15	1	4		
19. Chemistry	1	1	3	6		3		1
20. Geology	2	3	15	24	2	6	1	1
21. Geography		2		11		2		1
22. Zoology	4	4	13	11	2	4	1	1
23. Anatomy	1	1	1	2				
24. Physiology	1	2	9	12	1	5		1
25. Botany	4	6	66	66	19	18	6	4
26. Pathology and bacteriology	1	1	5	2	2	1		
27. Old Testament literature	2	1	15	22	3	2	1	1
28. New Testament literature	1	1	14	14	2	2		
29. Systematic theology	2	3	4	6	1	3		
30. Church history	2	2	3	5		2		1
31. Homiletics	1	1	8	4	4	1		
32. Library science	1	1	23	22	4	3		
33. Nature study		1		2				
34. Drawing		1		3				
	103	119	1,744	2,006	490	585	170	233

[a] University of Chicago, president's reports for 1904 and 1905.

The students in these courses are from all parts of the world, some registering from Australia, Turkey, and Japan, as well as from Europe and Canada.

INTERNATIONAL CORRESPONDENCE SCHOOLS, SCRANTON, PA.

This school is the largest of the correspondence schools, and is representative of the class of schools operated as commercial ventures by stock companies. The main facts in the following brief description are taken from the address of President Thomas J. Foster, delivered at the fifteenth anniversary of the schools, October 16, 1906, and from the information given by the officials of the schools to the Commissioner of Labor.[a]

Pupils.—The classes most interested in this work are those of apprentices and mechanics, although many others take advantage of the

[a] Report of the United States Commissioner of Labor, 1902, pp. 225–234.

courses. The average age is about 26 years, being considerably more even than that of the Young Men's Christian Association classes. The geographical range is world-wide. Much time and money are spent in advertising the institution; representatives are in the field constantly, and no effort is spared in securing students.

Methods of instruction.—These are in general very much the same as those used in the "formal courses" of the correspondence department of the University of Chicago, but the supervision is not so strict nor are the requirements so rigid. No limit is placed on the time when a given course is to be finished, and it often runs on for six or eight years. The per cent of those completing courses is much less than that in the University of Chicago.

Admission.—The only requirement for admission is the ability to read and write English.

Expenses.—The expense of the courses is much higher than that in the university. Each "scholarship," which represents a given course, has a fixed price ranging from $50 up. They are usually paid for in installments, the initial fee being $5. Text-books are furnished by the school. The volume of the business may be seen from the receipts for 1905–6, which were $4,200,000, and in September, 1906, the sum of $425,000 was taken in. In the past fifteen years $2,300,000 in dividends have been paid to the stockholders.

Courses of instruction.—An idea of the present scope of the instruction may be obtained from the 31 schools into which the teaching organization is divided. Each of these is in charge of a principal, who may have an assistant principal, and will have in his separate organization from one-half dozen to over 50 examiners and assistant instructors. * * * The titles of the 31 schools are: Advertising, architecture, arts and crafts, chemistry, civil engineering, civil service, commerce, drawing, electrical engineering, electrotherapeutics, English branches, French, German, Spanish, law, lettering and sign painting, locomotive running, mathematics and mechanics, mechanical engineering, coal mining, metal mining, navigation, pedagogy, plumbing, heating and ventilation, sheet-metal work, shop and foundry practice, steam and marine engineering, structural engineering, telephone and telegraph engineering, textiles, window trimming and mercantile decoration.

Text-books.—A special feature of this work is the text-books, which are written usually by competent experts with special reference to home study. The illustrations are profuse and the language simple.

Enrollment.—As has been mentioned before, it is impossible to determine the number of students. Many have dropped out, many enroll only to secure the text-books, with no intention of completing courses, and many take several years to complete the course. The number given out by the officials is about 350,000. But to reduce this number to anything like the same footing as that representing the enrollment in the evening schools or those of the Young Men's Chris-

tian Association we must divide it by 6, as suggested in the Report of the Commissioner of Education for 1902 (p. 1079). This would give about 60,000 bona fide students.

Value of the work.—In spite of the evident commercial element there can be no doubt but that this type of school is doing a needed service in the education of the more ambitious of the working people. Considerable discouragement certainly results from overpersuasion on the part of the solicitors, exerted upon those who have not the ability or the energy for such work. Many enroll with visions of a short cut to knowledge, of a "get-education-quick" scheme, and are in the end soured and discouraged. But the very energy of the solicitors brings the opportunity to many a man and woman who otherwise would not think that such a thing was possible for them.

Instruction by correspondence can never take the place of class instruction. It lacks the inspiration of personal contact, but as a means of help to ambitious people along special lines it has been and is of very great value.

D. SPECIAL SCHOOLS.

There are various educational institutions, philanthropic and semiphilanthropic in their character, which reach the working classes to a greater or less extent. These are very diverse, both in regard to the instruction offered and the general nature of the help given. Some of them, such as the Franklin Institute in Philadelphia; the People's Institute in Boston, and Cooper Union and the Mechanics' Institute in New York City, have been established expressly for the training and instruction of young men and women who are at work. Others, like the Lewis Institute in Chicago, the Drexel Institute in Philadelphia, and the Pratt Institute in Brooklyn, are more distinctly scientific or technical schools of high grade, and aim to give thorough courses leading to a degree or certificate. Nearly all the institutions of this kind also have evening classes for the benefit of those who are at work.

It is not possible to group these together in any satisfactory manner for description, for each has its own problem and its peculiar purpose and methods. Since very little help is derived from a mere summation of the courses given and since a description of all of these schools would occupy too much space, it has been thought best to describe only three of them, namely, Cooper Union, Pratt Institute, and the Mechanics' Institute in New York City, all of which have been investigated personally.

Among the institutions of this kind which are offering help to working people are the following:

Boston:
- Wells Memorial Institute.
- Massachusetts Charitable Mechanics' Association Trade School.
- People's Institute.

Chicago:
- Armour Institute of Technology.
- Lewis Institute.

Philadelphia:
- Franklin Institute.
- Drexel Institute.
- Spring Garden Institute.
- Hebrew Trade School.
- Philadelphia Textile School and School of Industrial Art.

New York City:
- Baron de Hirsch Trade School.
- Cooper Union.
- Mechanics' Institute.
- New York Trade School.
- Pratt Institute.
- St. George's Evening Trade School.

1. COOPER UNION.

Cooper Union for the Advancement of Science and Art is one of the best examples of a continuation school found in this country. Its establishment was the result of years of careful and patient labor. Peter Cooper realized through his own hard experience the need of help for young men and women who were at work; he had the clear judgment and vision to see what would be the best means to accomplish this result; and, finally, accumulated the means to make this vision a reality. Cooper Union was founded in 1854, and the charter in its present form was adopted in 1859.

Purpose.—By the terms of Mr. Cooper's trust deed the following objects were specified to be effected in the order of enumeration:

> First, to provide courses of instruction at night free to all who shall attend the same, in such branches of knowledge as in the opinion of the board of trustees will tend to improve and elevate the working classes of the city of New York. This provision has been carried into effect by the night classes for workingmen and women.
>
> Second, to [provide for] the support and maintenance of the free reading room, galleries of art and scientific collections, designed to improve and instruct those whose occupations are, in the opinion of the board of trustees, such as to deprive them of proper recreation and instruction. Under this provision the free reading room and library has been established and maintained, and more recently the museum for the arts of decoration has also been open to the public, and is now in practical use by many artisans and others who are employed in artistic occupations.

Third, to provide and maintain a school for the instruction of women in the arts of design. Under this provision the woman's art school has been established, and affords instruction to young women, as a preparation for employment and in work requiring a knowledge of drawing and colors. A school in telegraphy and in stenography and typewriting for women is also maintained.

The fourth provision looks to the establishment and maintenance of a polytechnic school by day, so that the space used at night might also be employed in the daytime for the purpose of technological education. It was distinctly provided that this portion of the work shall not be undertaken until the income of the institution will warrant the expense, without curtailing the operation of the departments heretofore enumerated.[a]

This last provision has now been realized, and Cooper Union stands complete. This has been made possible only through the confidence inspired in public-spirited men by the work actually accomplished in the institution. They have felt that here was a cause worthy of their support and have contributed generously.

The design of the founder was not to teach trades, but "to give instruction to those already engaged at trades in such departments of knowledge as might fit them to become foremen, employers, and good citizens." It is in no sense a part of the work to make up deficiencies in elementary education. It is for the purpose of giving capable, ambitious young people who are compelled to support themselves the opportunity of supplementing and enlarging their training in specific lines, or of giving them a thorough course in science equal to that in our best colleges. These young people are the successful men of the future, the leaders in art and industry.

Departments.—The departments of Cooper Union at present are: (1) A free day school of technical science for men and women, leading to the practice and profession of engineering, (2) a free night school of science for men and women, (3) a free night school of art for men, (4) a free day school of art for women, (5) a free day class in stenography and typewriting for women, (6) a free day school in telegraphy for women, (7) free classes in elocution, oratory, and debate, (8) free library and reading room, (9) a museum for the arts of decoration, (10) free lecture courses. The day courses are for those who can devote practically their whole time to study, and hence do not come directly within the scope of this paper. It must be remembered, nevertheless, that all these departments, by the character of the instruction offered and by the free tuition, are of direct help to working people who would not otherwise be able to receive such training. The departments considered are the free night schools of art and science.

Entrance requirements.—No student is admitted to any department of Cooper Union under 15 years of age. For the art classes no other requirement is made. In the science classes the applicant

[a] Cooper Union: 54th Report, 1903, p. 48.

must pass an entrance examination, the scope of which varies with the course taken. No other requirement of any kind is made. There is absolutely no distinction made in regard to race, nationality, or religion.

Courses of study.—In the art department the courses offered are free-hand drawing, decorative designing, modeling in clay, architectural drawing, and mechanical drawing. Each of these is pursued four hours per week.

In the science department four courses are given, as follows:

1. A five-years course in general science. The applicant must pass a preliminary examination in algebra through simultaneous equations of the first degree and in the first three books of geometry. No certificates of any kind are accepted in lieu of examination. The following shows the course by years and the number of hours per week in each subject.

Class E, first year: Algebra—3; geometry—3; elementary chemistry—2; civics—2.

Class D, second year: Algebra—3; geometry and trigonometry—3; elementary physics—2; civics—2.

Class C, third year: Descriptive geometry—2; analytical geometry—2; mechanics—2; theory of electrical measurements—2; civics—2.

Class B, fourth year: Analytical geometry—2; differential calculus—2; mechanical drafting—2; advanced chemistry—2; civics—2.

Class A, fifth year: Applied mechanics—2; higher physics—2; work in physical laboratories—2; work in chemical laboratories—2; machine designing—2.

2. A five-years course in chemistry. For admission to this students are required to pass an examination in algebra through quadratics and in plane geometry. The course is not so broad as that in general science.

First year: Elementary chemistry—1 hour lecture, 4 hours laboratory, 1 hour recitation; elementary physics—1 hour lecture, 2 hours laboratory, 1 hour recitation.

Second year: Quantitative chemical analysis—about 1 hour lecture, 1 hour recitation, 8 hours laboratory.

Third year: Advanced work in quantitative analysis—nearly the same hours as the preceding.

Fourth year: Advanced work in quantitative analysis.

Fifth year: One of these two subjects must be taken: (*a*) Electro-chemistry, metallurgy, and elementary mineralogy, or (*b*) synthetic and analytic organic chemistry.

3. A three-years course in electricity. Entrance requirements are the same as for the course in chemistry.

First year: Algebra and geometry—2; elementary physics—recitation 1, laboratory 2; electrical measurements—lecture 1, laboratory 4.

Second year: Trigonometry and analytic geometry—2; electro-magnetism and dynamo machinery—recitation 2, laboratory 6.

Third year: Calculus—2; theory of alternating currents—recitation 2, laboratory 4.

4. Special course in physics. A limited number of students are admitted to the physical laboratory for practical instruction in the various branches of mechanics and physics. The instruction consists of two sessions a week. Students are also admitted to the physical laboratory to pursue any course of experimental study or investigation suited to their individual needs. The course pursued and the time for study are determined by special arrangement.

Object of the laboratory courses.—It is the purpose: First, to develop and fix the student's knowledge of the scientific principles that underlie the developments in the arts. Second, to teach the scientific methods of experimental investigation. Third, to show how these methods apply to the study of problems met with in the applications of science to the arts. Fourth, to give the student practice in writing reports of his observations and conclusions.[a]

Examinations.—"Examinations of the classes are held during the last week in April and first week in May. No student is exempt from examination. The student's final standing will be determined by combining the result of the examination with that of the term's work, having regard to regularity of attendance." Students who fail to pass these examinations "must take the subject over in the class, and the same rules regarding attendance and recitation marks apply to such student as well as to those taking the subject for the first time. A student who fails to pass in a subject after having been a member of the class for two full terms, shall not be eligible to a third term."

Degrees and diplomas.—Students who complete the five-year course in general science receive the Cooper medal and diploma and the degree of bachelor of science. * * * Students who complete the course in chemistry are awarded the diploma of graduate in chemistry. Students who, the year following their graduation, satisfactorily complete a year's post-graduate work (as described in the special circular of the chemical department) will receive the degree of bachelor of chemistry. * * * Students who complete the three-year course in electricity will receive a diploma certifying to that effect. No student will be entitled to this diploma who has not pursued all the subjects of the last two years in the Cooper Union and passed the examination of the same.[a]

Length of term.—"The term for the scientific department begins the first Monday after the 15th of September, and ends about the 15th of May," making a term of about thirty-four weeks. "The term for the art department begins the second Monday after the 15th of September and ends about the 15th of May. The hours of study for both departments are from 7.30 p. m. to 9.30 p. m." Each session is usually divided into two periods in the science department, while in the art department the entire time is devoted to the single study.

Expenses.—Tuition is absolutely free to all. Text-books and supplies are furnished by the students. These may be purchased in the school at prices considerably lower than retail.

[a] Cooper Union, Circular of Information, Science and Art Department, 1906–7.

Teachers.—A great part of the success which has attended this work is due to the high class of instruction furnished. It would be difficult to find in any technical school or university a group of men better qualified by training and practical experience for the work of instruction.

Attendance.—Practically ever since its establishment the capacities of Cooper Union have been stretched to their limits. At first a considerable part of the building was rented for stores and offices, but of late years the whole building is in use and larger quarters are urgently needed. For the past three years the number of pupils at one time has been not far from 2,400, while the waiting list—those who have applied and are qualified to attend—has been about 2,500. The total number of applications from June 1 to December 31, 1905, was 6,537. The total number of pupils enrolled for a shorter or longer period during the year 1905–6 in all departments was 3,240. There seems to be no lack of interest on the part of the young people for work that really appeals to them. Another very gratifying thing is the regularity of the attendance. In the science department, Mr. Plympton says, the per cent of attendance on total enrollment is about 90. In the art department, where there are only two sessions a week in each subject, the per cent of attendance is much less. The enrollment in the different night courses of the science department is here given for the year 1905–6:

Class.	General science.	Chemistry.	Physics.	Electricity.
A	81	18		
B	115	20		
C	133	16		
D	191	85		
E	186	81		
Total	706	120	93	86

The total number in the night science department was therefore 1,007, while that in the art department was 1,400. In the day departments there were altogether 480 students.

Occupations of students.—There are no definite data on this point, but the result of a recent investigation by Mr. Plympton seems to indicate that the occupation most largely represented is that of clerks of various kinds, many of these seeking a change of employment. Next to these come machinists who wish to gain technical training. This closely corresponds to the occupations of the students in Young Men's Christian Association classes (p. 105).

It seems almost useless to attempt to measure the value of the work of Cooper Union. Everyone knows both what it stands for and what it has accomplished. Its reputation is world wide. It may be worth while, however, to consider briefly a few points.

It appeals to two classes of young people, namely, those who wish to obtain training in drawing and design and those who desire to pursue courses in science. It makes no attempt to prepare for college and will not accept students who wish such work. Its instruction in science compares favorably in many ways with that given in our colleges, but is not so broad, being confined almost entirely to the scientific subjects themselves. The single exception is in the study of civics, pursued for four years in the general science course. This is in accordance with the wish expressed by Mr. Cooper to fit the students for citizenship.

In the science courses the student is required to take all subjects, no special students being allowed. This gives a broad scientific foundation, lacking only the subjects described as "cultural." It is manifestly impossible in an evening course of five years to cover all the ground that is studied in a college course of four years. The attempt is made to pick out those things which are most necessary and vital to the student. The instruction is practical and bears directly upon actual working conditions, and aims to fit the student for a definite occupation. To the ordinary student who is ambitious enough to use his evenings for study there is a decided advantage in this over the ordinary college course. That something is lost, that he does not secure all that might be secured in a course at college, seems to be without question. The broad outlook upon life, the general training obtained in our best colleges, is largely lacking in such courses as those offered at Cooper Union.

There seems to be a growing feeling that the different subjects in these courses may themselves be treated in such a way as to bring out more of this general culture or training, while still retaining their practical character. This attempt is more apparent in the work at Cooper Union than in many other schools established for this class of young people.

II. MECHANICS INSTITUTE, OF NEW YORK CITY.

The General Society of Mechanics and Tradesmen of the City of New York was organized in 1785. "Its primary object was mutual aid, assistance in case of sickness or distress, and care for the widows and orphans of those who should die without property." It was successful from the first and was incorporated in 1792.

While still keeping to its original purpose, the scope of its work has broadened as its increasing income has permitted. In 1820 it founded the Mechanics School, for the gratuitous instruction of the children of poor or deceased members. This school became so popular that other children were admitted upon payment of a tuition

fee. The school was continued until 1858, when "the increasing merits of the public free school rendered it no longer necessary." In January, 1859, the present evening school was established.

The aim of this school is "to offer opportunity to young mechanics employed during the day to study those subjects which have a direct bearing upon their daily work, with the ultimate purpose of making them more intelligent and proficient workmen." Tuition is free to any young man, 16 years of age and over, who is of good moral character. There are many more applicants each year than can possibly be accommodated, and the waiting list is very large. This makes possible a better selection of young men and enables those in charge to insist on regular attendance. If a student is absent from class for two successive sessions and fails to notify his instructor of the reason for his absence, he is dropped from the roll and his place given to another. Under such circumstances it is not surprising that the average attendance is high, being nearly 90 per cent.

The school opens the last week in September and closes the second week in April. Sessions are held four evenings a week. The hours of instruction are from 7.30 to 9.30. This time is not usually divided, as in the public evening school, but the entire session of two hours is given to the consideration of one subject. As a rule, there are two recitation periods a week in each subject. In addition to the regular class work, technical lectures are given on the subjects pursued in the class room.

This school is under the direct control of the "school committee" of the general society. A director is in immediate charge and under him are trained assistants. In 1906 there were 19 of these instructors, 10 of whom were graduates of colleges and professional schools. The instruction given is of a high order and the requirements are very strict. The diploma of the society is awarded upon the successful completion of any of the three-years courses. The awarding of this diploma is dependent upon the passing of an examination held the latter part of March.

Thirty-one separate courses are offered. Some of these are limited to one class, others have from two to seven classes in each subject. The subjects taught are architectural, mechanical, and free-hand drawing, clay modeling, elementary physics, arithmetic, practical mathematics, elementary algebra, geometry, and trigonometry, and applied mechanics. The instruction in all these subjects is made as practical as possible. The society also maintains about 20 free scholarships in the New York Trade School.

In 1906 there were nearly 1,200 young men in attendance. Mr. Rouillion, the director, estimates that the majority are under 20 years of age, very few being over 25 years old. The following comparative

table shows the attendance in the different subjects for the two years 1900 and 1903:

	1900.	1903.
Elementary architectural drawing	70	114
Advanced architectural drawing	32	70
Elementary mechanical drawing	77	110
Advanced mechanical drawing	20	[illegible]
Elementary free-hand drawing	66	78
Advanced free-hand drawing	[illegible]	29
Clay modeling	34	65
Mathematics	70	77
Physics	63	82
Total	458	683

There can be no doubt of the great value of this work. The boys are very industrious and impress one with the feeling that every minute is precious to them. Their earnestness and interest are in striking contrast with the listlessness so often seen in many of our evening schools. This is partly due to the fact that the pupils in this school are a picked lot, decidedly above the average in intelligence and general ability. The instruction bears directly upon their work and they can see its practical nature. The results of such training show in the increased wages and the higher positions which the graduates attain.

It must be said that this instruction is somewhat narrowly practical, however, its aim being limited to the making of efficient workmen. There is no question that in this very fact much of its strength lies. But strong as the work is and necessary as it is, it does not contain all the essential elements of a continuation school whose aim is to make efficient citizens.

III. PRATT INSTITUTE.

Pratt Institute is another notable example of the effort of a far-sighted man to minister to a definite public need. It represents a somewhat different type of institution from that of Cooper Union. Being founded considerably later, in 1887, when the need of the people for industrial training was becoming more apparent, this side receives more emphasis, especially in the evening classes. The purpose in the mind of the founder, Mr. Charles Pratt, was, however, by no means confined to the industrial side. "Its object is to promote manual and industrial education, as well as cultivation in literature, science, and art, to inculcate habits of industry and thrift, to foster all that makes for right living and good citizenship, and to aid those who are willing to aid themselves." It thus provides means by which, at small expense, "those who wish to enter mechanical, scientific, artistic, educational, and domestic occupations may lay the foundation of a thorough knowledge, theoretical and practical, in the work

they wish to do, or may perfect themselves in that in which they are engaged." It does not, like Cooper Union, offer free tuition to its students, but the charge for the courses is merely nominal.

While the principal work of the Institute is in the day classes, it has always recognized the importance of giving to those who are obliged to work during the day the opportunity for evening study. It is the wish of the directors that the equipment shall be used as much as possible, and thus give the maximum benefits.

Organization.—Evening work is given in the following departments: Fine and applied arts, domestic arts, domestic science, and science and technology.

Entrance requirements.—The only entrance examinations required are for the course in applied electricity and for the one in steam and the steam engine and the strength of materials. For the former an examination in arithmetic and algebra through simple equations is required, and for the latter an examination in arithmetic. The applicant must give evidence of ability to do the work of the course selected. In most cases the number of applicants is so large that all can not be accommodated and a selection is made, not necessarily in the order of application, but rather in accordance with the ability of the applicant. Thus a better type of student is obtained. In age the students range from 16 to 40 or more, but the great majority are under 24 years of age.

Subjects of study.—In the department of fine arts there are evening classes in freehand drawing, life and portrait painting, architectural drawing, decorative and applied design, clay and wax modeling, metal chasing, and wood carving. The tuition fee is $10 for the term of six months, except for the course in metal chasing, for which it is $15. All classes meet Monday, Wednesday, and Friday evenings from 7.30 to 9.30.

Department of domestic arts.—Evening courses are given in sewing, dressmaking, millinery, and costume design. These are for dressmakers, milliners, and others who can not attend the day classes. The tuition fee is from $2 to $5 per term of three months. Instruction is given on Monday, Wednesday, and Friday evenings from 7.30 to 9.30.

Department of domestic science.—Evening classes in cookery, serving, and laundry work are offered. The aim is to train women to be efficient, practical workers in the home. Each course requires three months for its completion. Cooking classes meet Mondays and Fridays, classes for waitresses on Mondays, and those for laundresses on Fridays. The tuition fee is $2 per term.

Department of science and technology.—The evening courses in this department are divided into technical courses and trade courses. The technical course includes elementary electricity, practical mathematics, physics, technical chemistry, applied electricity, mechanical

drawing, machine design, mechanism, steam and the steam engine, and strength of materials. The evening trade courses include carpentry, pattern making, plumbing, sign painting, fresco painting, machine work, and tool making. All classes meet Monday, Wednesday, and Friday evenings from 7.30 to 9.30. Tuition fees are from $10 to $15 per term of six months. Applicants for the evening trade courses must be between the ages of 16 and 24 years.

Enrollment.—The enrollment in 1905–6 in the different departments of the evening work was as follows:

Fine arts	335
Domestic arts	182
Domestic science	108
Science and technology	756
	1,381

In these courses, as far as the time permits, is given theoretical and practical instruction in each of the various branches. Each is intended to supplement the practical experience of the student, and enable him to advance to positions of larger responsibility.

Certificates.—Certificates are awarded in architectural and mechanical drawing, chemistry, machine design, plumbing, carpentry and pattern making, machine work, fresco painting, and sign painting.

Practical talks.—One of the most important features of the work is the course of lectures or practical talks given by each teacher. These cover a variety of subjects including not only shop methods, labor-saving devices, and other kindred subjects, but the relations of employees and employer, of the individual laborer to his family, to the community, and the state. Here a definite attempt is made to teach the dignity of labor and the proper function of the laborer in the life of the community. These are not merely perfunctory talks, but strike at the vital principles of real service. Here is certainly to be found one of the methods for counteracting the narrowing influence of mere acquisition of mechanical skill or industrial efficiency. In these talks the true teacher finds the means for enlarging the view and elevating the mind of the individual worker, so that he can no longer be simply the wage-earner, but becomes an efficient productive citizen.

Teachers.—The spirit of the founder of the institute is reflected in the teachers. Some of them seem to have "caught the spirit" in a remarkable degree. It is only necessary to talk with them for a short time to understand the power which these men exert over their pupils. In at least three of those with whom I talked the enthusiasm, not for the technical work alone, but for the boys themselves, was clearly evident. The instruction is only the means by which the teacher comes into close vital relations to the pupils. It is of an exception-

ally high order, but it does not stop with that. As expressed by one teacher, the attempt is "to give the technical skill and the essential facts of the trade in the proper atmosphere." These attempts are already bearing fruit in the lives of the young men who go out from Pratt to positions of large responsibility. Many of the teachers in the evening classes are practical men who are at work during the day. They do not need the salary, but teach because of their great interest in the boys. The teaching given in Pratt Institute is very effective in all departments, the standard set is high; but no more vital work is done there than this attempt to inspire the young laborer with lofty ideals of public service.

E. SCHOOLS FOR APPRENTICES AND EMPLOYEES.

The efforts of the welfare department of the National Civic Federation have resulted in an increased interest in all that concerns the welfare of the laborer, whether in factory, shop, or mercantile establishment. While many firms have long given especial attention to such work, organized efforts in this direction are of very recent origin. The welfare department has sought to call attention to the needs of laborers, to investigate the methods used by different establishments, and to make a careful study of the problems involved.

The general lines along which welfare work is conducted include the physical health and comfort of the employee, opportunities for recreation, educational advantages, and provisions for securing suitable sanitary homes. The character of the measures taken varies greatly, each establishment furnishing a separate problem. Considerable difficulty is encountered in the practical management of this welfare work, especially in securing a perfect understanding and cooperation between employer and employee. It has usually been found most satisfactory to allow the method to develop gradually, depending upon the initiative of the employee.

The educational features include clubs, reading rooms, and lecture courses, as well as classes in the common branches, freehand and mechanical drawing, cooking, sewing, etc., and in other subjects bearing more directly upon their work. Usually these classes, especially for the younger employees, have two distinct aims: First, to offer opportunity for intellectual training and improvement, as well as instruction in the fundamental principles underlying their work; second, to enable the employers to select the brightest and most capable young people for positions of larger responsibility. While the instruction given varies with the particular aims and needs of each establishment, two fairly distinct types may be distinguished: First, that in factories, mills, etc., which often is directly connected with the training of apprentices, and, second, that in mercantile establishments for clerks and other employees.

Schools for apprentices conducted by educational authorities.—Several definite attempts have been made to provide schools where apprentices could obtain that wider general and technical training which is no longer possible under the present apprenticeship system. Some of these have been mentioned in the section on evening schools. Two examples of this type, which are being successfully conducted at present, are here described: The School for Apprentices in Chicago and the Co-operative Engineering Courses of the University of Cincinnati.

1. CHICAGO SCHOOL OF APPRENTICES.

One of the most interesting experiments in the direction of supplementary training for apprentices is the School for Apprentices conducted in Chicago. This is unique in many particulars, and its future development will be carefully watched by all interested in the continuation school movement. The following general description is taken from the Report of the Board of Education of Chicago for 1904, and from the account in World's Work, vol. 5, p. 3366.

In January, 1901, in response to a request from Mr. Joseph Downey, the Board of Education began to make provision for the education of apprentices of the masons' and bricklayers' associations. Six or seven apprentices attended the English High and Manual Training School for three months during the slack season. They studied arithmetic, English, architecture, drawing, and woodwork.

In 1902 the Bricklayers' Union and the Masons' and Bricklayers' Association united in a request to the Board of Education to establish a school on the same general lines as the instruction given the first year. This was accordingly done and there were 60 pupils enrolled. In education these ranged from those who had attended a high school for two or three years to those who could read English with difficulty. A proper organization was accordingly very hard to secure.

In 1903 five teachers were employed, and the average attendance was 100. In 1904 the average attendance was 106. In the morning the pupils studied the ordinary English branches; in the afternoon they received instruction in architecture, building, and superintendence. In addition to this, lectures were given on anatomy, physiology, first aid to the injured, and on architecture, masonry, building and superintendence, fireproofing and fireproof construction, terra cotta, and the manufacture and use of steel. These subjects bear directly upon the work of the apprentice, and aim to give him a general knowledge of the trade, which would be impossible for him to obtain in actual employment. Besides this, the instruction in the common branches tends to broaden the training still further and make the apprentice more efficient. Nine months of the year are spent in the regular occupation.

The general management of the school, aside from the supervision and general control exercised by the board of education, is left to the joint arbitration committee of the union and the association. All fines assessed by the committee for the breaking of joint rules go to the purchase of text-books for the pupils. For each day's work at school each pupil is paid the regular wage of the bricklayers' union to which he belongs. If a student is absent the principal reports the fact to the arbitration committee, and the time lost is added to the time he must serve as an apprentice to his trade.

By an act of the legislature, approved May 15, 1903, it is provided that, when indentures are drawn, "in all municipalities where a manual training school is maintained for the technical instruction of apprentices, such indentures shall further provide that it shall be the duty of the master to cause the apprentice to attend such school for at least three consecutive months in each year without expense to the apprentice."[a] In its general provisions this law is very much like the *Gewerbeordnung* of Germany. Whether this will have any immediate result or not, it has furnished a valuable precedent in the way of placing the responsibility for the more complete training of apprentices upon the masters.

The school thus established in Chicago promises well, and if it proves successful the plan may well be adopted in many places where conditions are favorable. It has the great advantage of uniting the board of education, the labor unions, and the employers' associations in one common purpose. The Chicago carpenters' union has petitioned the board of education for a similar school during the slack months. So far no school for apprentices of this trade has been established. In all trades where there are such slack periods the plan might easily be tried and much good result.

II. COOPERATIVE ENGINEERING COURSES OF THE UNIVERSITY OF CINCINNATI.

A notable example of the effort to provide a more complete training for apprentices is seen in the system of cooperative education in the University of Cincinnati, devised by Professor Schneider. The data for the following account are found in the University Weekly News, May 2, 1906, and the University of Cincinnati Record, November, 1906:

About thirty-five of the largest mechanical and electrical manufacturing companies in Cincinnati and vicinity have agreed to send apprentices (varying in number from 2 to 12) to the University to take a special course in mechanical or electrical engineering. These courses are six years in length and lead to the regular degrees. Ap-

[a] Illinois School Laws, 1903, p. 180.

prentices from each plant work in pairs, each one alternating with his fellow apprentice at the factory and at the university, the same work being given on alternate weeks. One student apprentice works at the shop one week while the other pursues his engineering studies; then they exchange places and so continue for the eight and one-half months the university is in session. By this plan no machine at the plant is idle and no loss is suffered by the employer. The cooperating employers pay the student apprentices only for the actual time they are at work, i. e., for the weeks they are at the shop; the wages begin at $4.40 per week and increase at a regular rate. The employer also offers a bonus of $100 to every boy who completes his period of apprenticeship. In this way the apprentice can earn in the six years enough to pay all his college dues, and $1,230 besides, to help pay his living expenses.

Admission.—A high school education or its equivalent is usually demanded for admission, although students well versed in mathematics may be admitted conditionally. A period of two or three months of work in the shop always precedes the entrance to this school. This is for the purpose of proving the mental and mechanical ability of the apprentice.

The details of this plan were only completed in June, 1906, but before the opening of the session in September more than 30 young men had enrolled. Both manufacturers and instructors are well pleased with the results so far achieved. Some of the more obvious advantages of the plan are as follows: (1) The student supports himself largely; (2) his theoretical and practical training go on together, each simplifying and shortening the other; (3) his practical work is supervised by practical men, who are constantly on the lookout for the best men to fill positions of responsibility. Thus the apprentice is sure of a good position on the completion of his term of apprenticeship. It will be remembered that an arrangement somewhat similar was mentioned as being tried at the University of Manchester, England. It hardly seems possible that any reasonable objection can be raised to such a plan as this. It seems likely to result in great good to the university, to the employer, and to the apprentice.

Educational training for apprentices in factories.—For many years considerable attention has been given by various manufacturing firms to the education of their apprentices. The methods employed are various and the results obtained not uniformly successful. Some kinds of factories lend themselves more easily to such efforts than do others.

Among the establishments conducting successful schools for apprentices may be mentioned the Baldwin Locomotive Works, Philadelphia; the National Cash Register Company, Dayton, Ohio; Yale and Towne Manufacturing Company, Stamford, Conn.; the Ply-

mouth Cordage Company, North Plymouth, Mass.; Brown & Sharp Manufacturing Company, Providence, R. I.; the General Electric Company, Lynn, Mass.; and R. Hoe & Co., New York City.

In order to show the character of the work done, the last two of these will be described in detail.

III. SCHOOL FOR APPRENTICES CONDUCTED BY THE GENERAL ELECTRIC COMPANY OF LYNN, MASS.

The system of training apprentices employed by the General Electric Company at Lynn, Mass., is in many ways very complete and effective. The following facts are taken largely from a paper read before the American Society of Mechanical Engineers by Mr. Magnus W. Alexander. Extracts from this paper are found in the Engineering Magazine for January 1907, pages 625–628.

Candidates for apprenticeship must be at least 16 years old and have a grammar school education. They are placed on trial for a month or two, and at the end of that time those who seem capable are allowed to sign a regular apprenticeship agreement. This provides for a service of four years at stipulated wages on a progressive scale from $4.50 a week during the trial period to $9.25 during the last year. A cash bonus of $100 is paid at the termination of the course, and a "certificate of apprenticeship" is given at that time.

It is the aim of the General Electric Company to train skilled artisans in the various trades of machinist and tool maker, carpenter and pattern maker, iron, steel, and brass molder, instrument maker, and electrical worker, in such a thorough manner that the leading positions in the factory, such as assistant foremen, foremen, master mechanics, and superintendents may be filled from the ranks of graduated apprentices.

It is clearly seen that such leaders should possess some information besides a practical knowledge of their trade; they must see beyond the present task and understand it in its relation to the whole process, and have the ability to so grasp the situation that the best results may be obtained. In order to do this, the General Electric Company has provided for theoretical training of a very practical character, which is designed to enable the boy "to apply in the workshop the knowledge he gains in the schoolroom." For ten months each year the apprentices receive instruction by turns in the class room for six hours a week during the day. The schoolrooms are close to the workshop and the time so arranged that about one-fifth of the apprentices are at school at one time. The same wages are paid the boys for this time as for the time when they are at work.

"The teachers in the schoolroom are men selected from the staff of engineers, draftsmen, and foremen, who are assigned for six hours per week to the work of teaching." The subjects taught are mathematics, physics, technology, and mechanical drawing. Examinations

are given frequently during the year, and the final examination determines largely the standing of the apprentice and the wages he will receive. There is a special shop under control of a man in charge of apprentices. This man has had years of experience as a mechanician and has unusual ability in handling boys. He has only two assistants, the older apprentices themselves being utilized as instructors for the beginners. After learning one process, the apprentice is usually required to teach it to a younger apprentice before he begins to learn another. The apprentices spend from one and a half to two and a half years in this training room, according to their ability, and are then transferred to the factory departments and placed under the charge of the foremen. On the completion of the course the best men are encouraged to remain with the company.

By this means the company not only selects the most capable young men, but also gives them the training which will enable them to perform the most successful service as foremen, expert machinists, etc. The apprentices thus obtain a general knowledge which it would be impossible for them to get by work in the shops. This training is eminently practical and very effective, but it must be conceded that it is somewhat narrow. The purpose in view is that of selecting and training foremen for a particular branch of work. There is no attempt to minister to the larger needs of the individual. Such schools are doing good service, but they can not be regarded as furnishing the kind of education most demanded by the great body of our young people who are not in school.

IV. SCHOOL FOR APPRENTICES OF R. HOE & CO.

One of the first establishments that attempted to provide general training for its apprentices was that of Hoe & Co., of New York City. From 200 to 300 apprentices are here given systematic instruction in subjects calculated to increase their efficiency as intelligent workmen. The principal facts in this description were given by Mr. Henry Watterson, the present director.

Admission.—Applicants must be at least 16 years old and fairly intelligent. Usually the previous educational training is equivalent to that received in the grammar grades of the public schools. Each apprentice is required to enter into a legal agreement which is signed by the parent or guardian. All are placed on probation for a month before being admitted to the school.

Hours of school work.—The school is conducted five evenings a week, from 5.20 to 6.45. Each evening is divided into two periods of about forty minutes each. The year is divided into two terms, the first beginning October 1 and ending February 1, the second beginning February 1 and ending June 1. Apprentices may enter at either term.

Course of study.—The course given is still in the stage of evolution, but even now presents some very interesting features. The work is planned for four years, and each class represents one term or one-half year. The course of study as at present conducted is here given, beginning with the first year's work, together with the number of periods per week of forty minutes each given to each subject.

III. C. 3. Arithmetic to percentage—3; spelling—3.
C. 2. Arithmetic, percentage to compound proportion—3; English, punctuation, grammar etc.—3.
II. C. 1. "Practical geometry," construction work—3; "Mechanics," mensuration—3; English, drill in punctuation, etc.—1.
B. 3. Mechanics—1; English—1; practical geometry—2; drawing—2.
I. B. 2. Mechanics—1; English—1; drawing—2; practical geometry—2.
B. 1. Drawing—2; practical geometry—2; mechanics—2; talks on citizenship, including elections, and government of city, State, and nation.

This completes the regular course for which certificates are given.

Class A is a graduate class. The instruction is mostly in free-hand and mechanical drawing. Occasionally some work in trigonometry and calculus is given to the brighter boys. Apprentices are not required to spend more than a year in this class, but are allowed to remain in it until the completion of their term of apprenticeship, which is five years.

The subject-matter of each of these studies is taken, as far as possible, from the work of the shop. For instance, the arithmetic studied is one prepared especially for the school by Mr. Watterson, and the problems are actual problems which are met with in the work of the establishment. The text-book in mechanics is also a special text-book prepared by the teacher of that department, Mr. Womrath, and includes mensuration, practical shop work, etc. The geometry is construction work and connects directly with the instruction in drawing. The subject which is most difficult to connect with the shopwork is English; but even here the connection is made as far as possible by means of letters, orders, etc., taken from the official correspondence. In the talks on government and citizenship the attempt is made to broaden the view and to make good citizens. As yet the result is not as satisfactory as it is hoped that it may be made. The boys do not see what practical use can be made of this, and in consequence their interest is not strong. Mr. Watterson hopes to overcome this by improving the work, making it more vital, and also by developing a sentiment among the foremen in favor of it.

Prizes, etc.—Every effort is made to encourage the work of the school. Regular commencement exercises are held in June, at which prizes are given to the boys in each class who have the best and the second best averages for the two terms of the year. The most valuable prize is a gold watch for the boy of the A class who has the best

average. Whenever a boy shows exceptional ability in any department he is picked out for special attention. If he has unusual ability as a draftsman he is taken into the drafting department, where he receives better pay and has opportunities for further advancement. Sometimes boys who show exceptional ability are taken into the office department. In determining the final standing of the apprentice his school work, general deportment, and interest, as well as his ability in the shop, are considered. His complete record is kept in the office, and his parents or guardians are notified of the progress made.

Teachers.—The teachers are usually practical men and know the needs of the boys. A plan which promises well is being put in operation. The brighter apprentices, after the completion of the regular course, are put in charge of some of the classes under the direction of the regular teacher. The purpose of this is to develop responsibility and self-reliance in the pupil-teacher and fit him still further for positions of trust. It is the very best training for foremen. It is too early to determine whether the plan will be successful or not.

Throughout the period of apprenticeship and for some years thereafter the brighter boys are encouraged in every way. They are urged to take special courses in Pratt Institute, Cooper Union, or some other evening school of like grade, and every opportunity is given to the boy to show whatever ability he may have.

While this school does not yet fully meet the needs of the apprentice nor come up to the expectations of the director, it is rendering valuable service both in selecting the best boys, who will be the foremen of the future, and in giving that all-around training in the fundamental principles underlying the work of the factory which is so essential to the skilled workman.

V. SCHOOLS FOR CLERKS IN MERCANTILE ESTABLISHMENTS.

Clerks and other employees in mercantile establishments can not be trained in a way analogous to that of apprentices in other establishments; the difficulties seem to be somewhat greater. While probably the great majority of large mercantile establishments now have welfare departments of various kinds, not all are successful in maintaining educational classes. Some firms, after years of experiment, have abandoned such work. Among these are the firms of Jas. Hearn and of John Wanamaker, in New York City. One reason given for this abandonment was that the public evening schools could do the same work to better advantage; another was that the time of the clerks could be more profitably employed in other ways.

It is not possible to give a list of the firms conducting educational classes for their employees. Two of the most successful are Sears, Roebuck & Co., of Chicago, and John Wanamaker, of Philadelphia.

In the Philadelphia establishment of John Wanamaker the young people are organized into three classes, which collectively are known as the John Wanamaker Commercial Institute. These three divisions are (1) cash boys, (2) girls up to 17 years of age, and (3) boys, other than cash boys, from 16 to 18 years old. The aim of all the training, educational and commercial, is to make the young employees more efficient.

Besides the general training in the regular duties of the establishment, organized classes are conducted. The smaller boys are given instruction in arithmetic, grammar, spelling, writing, composition, and singing on two mornings a week. The girls also have educational classes two mornings a week. In addition to the branches taught the boys, the girls are instructed in business correspondence, stenography and typewriting, and bookkeeping.

The older boys, numbering about 300, have supper in the store and remain for their school two evenings a week. The branches taught are arithmetic, spelling, writing, commercial correspondence, English, stenography, bookkeeping, the metric system, mechanical and free-hand drawing, and rapid calculation.

A monthly report of the standing and progress of each pupil is made to his parents. The graduates from each of these divisions receive certificates, and promotions are largely based on these. This results in a sort of civil-service promotion, the higher positions being constantly filled by those who have grown up in the business.[a]

A school of a similar kind is now conducted by Sears, Roebuck & Co., in Chicago. This school was the result of a request from the employees themselves. It began soon after the occupation of the new quarters, in January, 1906. There are at present 105 enrolled. A small tuition fee is charged, just enough to pay the salaries of the teachers. The subjects studied are penmanship, stenography, spelling, and business arithmetic. Instruction is given on three evenings a week. The teachers are mostly day-school teachers and Young Men's Christian Association workers, but the intention is to use regular employees for this purpose as soon as the school is fully organized. The interest manifested is at present very strong. Just what will come of this attempt, in what direction it will develop, we can not say. The intention is to introduce other subjects and to widen the scope of the work in the direction of the needs of the employees as rapidly as the resources at hand will permit.

[a] Welfare Work in Mercantile Houses. Issued by the Welfare Department of the National Civic Federation. Pp. 12–18.

V. KIND AND AMOUNT OF INSTRUCTION GIVEN IN CONTINUATION SCHOOLS.

A. CONTENT OF THE COURSE OF STUDY.

On account of lack of material it was necessary to abandon the comparative study of the curricula of the evening schools which had been attempted. Very little notice is taken in the regular school reports of the subjects pursued in the evening schools. Consequently only a few general facts will be noted.

Elementary evening schools.—The studies pursued in the elementary evening schools, in which the great majority of the pupils are enrolled, are narrowly restricted to the fundamentals, and include little else than reading, writing, and arithmetic, with a smattering of history and geography. In many places, notably Massachusetts, drawing is usually given, and in other places some attempt is made to introduce such subjects as cooking, sewing, manual training, stenography, and typewriting; but in general little is attempted except the common branches.

Evening high schools.—The curricula of the evening high schools are much more varied. Data have been obtained from 14 evening high schools, exclusive of mechanic arts, manual training, and technical evening schools. In these 14 schools 42 different subjects are offered. These are given below in the order of their frequency, with the number of schools in which each study is offered.

Curricula of evening high schools.

Subject.	Number of schools.	Subject.	Number of schools.
1. Algebra	14	22. Commercial law	4
2. Geometry	13	23. Physiology	3
3. Bookkeeping	12	24. Trigonometry	3
4. Stenography	12	25. Economics	2
5. English	11	26. English history	2
6. Chemistry	10	27. Sewing	2
7. Latin	9	28. Cooking	2
8. Physics	8	29. Psychology	2
9. Civics	8	30. Analytics	1
10. American history	8	31. Geology	1
11. Mechanical drawing	8	32. General history	1
12. Typewriting	8	33. Commercial geography	1
13. German	7	34. Municipal government	1
14. Free-hand drawing	7	35. Civil service	1
15. French	6	36. Shop work	1
16. Spanish	6	37. Carpentry	1
17. Commercial arithmetic	5	38. Wood turning	1
18. English and American literature	5	39. Electricity	1
19. Penmanship	5	40. Ship drafting	1
20. Architectural drawing	4	41. Physical training	1
21. Arithmetic	4	42. Music	1

While it is not possible from these data to draw any definite conclusions, we can see that the emphasis, in the majority of these schools, is still on the side of the course given in the day high school, with a

tendency toward the scientific side. Latin still holds its own fairly well, while stenography, bookkeeping, and typewriting are very much in evidence.

It is impossible to determine the relative popularity of the various courses without data of the number taking each subject, and this we do not have, except for a few schools. In these the commercial subjects enroll the greatest number. Whether the subjects as given in the table represent the demands of the students or not we can not definitely say. It is probable that the courses, in the majority of cases, represent what the school authorities think should be given, rather than the demands of the young people. There is a decided tendency, as far as we can determine from these data, in the direction of commercial and industrial work. Nearly half of the 42 subjects represent this department of training, and while only a few of these are found in the majority of the schools, their prevalence, nevertheless, shows a decided tendency.

The mechanic arts, technical, and manual training high schools represent a different type of training, and one which is receiving more attention than formerly. The curricula of these schools are very similar and present little that needs comment.

In the Young Men's Christian Association classes, as we have seen (p. 103), the emphasis, as far as the number of pupils enrolled is concerned, is in the direction of commercial and industrial subjects, more than half of the students being in these two groups. This would be materially increased if we should include those students in the language and science groups who are pursuing those subjects with the idea of immediate use in the commercial and industrial world.

Although the original idea of continuation school work was a repetition of the work of the day school, we can clearly see, even from the meager data at hand, that it is by no means such to-day. The special needs of the class to be reached are considered more fully, and the courses offered and the methods pursued are in process of change in consequence. The near future will undoubtedly witness a great development in this direction.

B. HOURS OF SUPPLEMENTARY SCHOOL WORK.

One of the most difficult problems in supplementary education is to determine when such instruction can most profitably be given. Various plans have been tried in different countries. In Germany we have seen that the tendency is toward the elimination of Sunday instruction, and a movement has been started for part-time day classes. In Wurttemberg this has resulted in the recent law providing for day instruction in the Fortbildungsschulen. Whether this will prove

entirely satisfactory can not yet be determined. In England and the United States very little effort has been made in the direction of day classes for young people who are at work.

It is generally conceded that the young person who is working hard for ten hours a day is not in a condition to receive the maximum benefit from evening classes. It is certainly true that in many classes of our public evening schools there is often shown great listlessness and a general lack of interest. It would be very helpful if we could determine the exact cause of this listlessness. That in many cases it is due to physical weariness seems clear, but it is not at all certain how far this is a determining factor in the general lack of interest. The fact that in such schools as Cooper Union and the Mechanics' Institute of New York City the pupils show such great interest in spite of their long hours of labor makes it probable that physical or mental fatigue is not the only cause. There can be no doubt that the vital relation which the instruction in these schools bears to the daily work of the pupil holds his interest and attention in spite of his physical weariness.

Several factors complicate the situation. In the first place, we know very litle about the way in which different kinds of labor affect the general fund of energy, if there is such a general fund. Nor are we yet able to measure the amount or kind of energy left over in individuals after the day's work. This undoubtedly varies so much in different individuals and for different kinds of work that no general principle can be applied. At present all we are able to do is to judge by results. We find that a person who has been at work for a certain length of time does not seem to have the energy for intellectual effort of certain kinds. Whether this is true of all kinds of intellectual effort can be determined only by actual experiment. Again, it may well be that certain kinds of intellectual effort act as a stimulant, and possibly make a further drain upon the vitality which may have detrimental results. This, too, can be determined only by the outcome. As yet we know so little about the relation existing between different mental and physical activities that it is impossible to determine in advance precisely what the effect of a given line of effort will have upon the individual.

The pupils in such schools as Cooper Union and in our evening high schools undoubtedly represent a better type of individual than those in elementary evening schools. It is probable that the former have at the end of the day a greater fund of "surplus" energy than many of the others. The very fact that they are more easily interested would tend to show that this is true. If such is the case, it would probably be unwise to use the methods of the former schools in dealing with all people who are or should be in continuation schools.

There are two definite lines of improvement which are practicable, and concerning the value of which there can be little doubt. First, a more general application of the eight-hour labor rule. This would undoubtedly result in a great increase in the effectiveness of the evening work. The majority of the students in the Mechanics Institute work only eight hours a day; the same is true of many at Cooper Union. The next logical step after a more general application of the eight-hour rule to adults would be a still further shortening of the working day for young people, say under 18 years of age. This might make possible part-time day schools. It would at least be a great help in the evening school work.

The second line of improvement would be at least equally as helpful, namely, a better adaptation of the methods of instruction and of the courses offered to the needs of the pupils. If the students realize that a certain kind of work is vital, they will not only do it, but do it willingly. The less intellectual ability a person has, the less can he be interested in remote ends, and the more must he have immediate ends and interests for his action. In the schools which aim at making up deficiencies in elementary education, the interest which is manifested by the foreign element is due to the immediate ends set before them—of getting possession of the tools of the English language; of being able to talk and write in the language of their adopted country. This motive and this interest are not felt to as great an extent by our own illiterate class. They can already speak well enough to be understood and higher attainments do not appeal to them. Their interest is in making a living. If by going to evening school they can get that which will make it possible for them to earn more in the same time, or earn more easily what they do earn, many of them will attend. If, then, the instruction can be made to furnish this immediate end, it will be more likely to attract and hold this class.

There have been spasmodic and scattered attempts at the establishment of part-time day schools, but no general movement in this direction seems probable for some time to come. As far back as 1868 Fall River had part-time day schools for factory children from 5 to 15 years of age. The agitation against child labor and the passage of compulsory school laws have rendered those schools unnecessary. From 1867 to 1885 Boston had a school for licensed minors where newsboys attended in the morning and bootblacks attended in the afternoon. When the compulsory school laws were more strictly enforced these were discontinued. The report of the Massachusetts Commission on Industrial and Technical Education contains a recommendation for part-time day schools in the following language: "And that provision be made for the instruction in part-time day classes of children between the ages of 14 and 18 years who may be employed

during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on together."*

Just what the results of this recommendation will be we can not now determine. There seems to be no reason why the principle there laid down can not be put in force, but it can only be conjectured when steps to do this will be taken. High schools and trade schools already established might very easily adapt certain courses to meet such a demand. Instruction might be given in the morning to certain classes of young workers and in the afternoon to others. It would be comparatively easy to arrange such courses, and credit could be given for work done in this way.

A combination of the various plans outlined would probably more completely meet the needs of all people than would anyone of them alone.

C. QUANTITATIVE COMPARISON OF WORK.

Very little that is definite can be contributed in the way of comparison of the amount of work covered in the various types of school. It is impossible to secure sufficient data on this point. So many complications enter which would materially affect the actual amount of work covered that no general statement which would be of value can be made. A few items will be all that can be given here.

In the Young Men's Christian Association classes the number of recitation hours per year to each course is about 44. This is the median taken from the reports of 156 associations for the year 1901. The range is from 12 hours to 137 hours. The majority of students in the Young Men's Christian Association classes take only one subject, so that the term of 44 hours represents the median total length of time which the majority of these students spend in recitation.

In the public evening high schools the number of recitation hours is about 162 per year. This is the median from 13 evening high schools from which data were obtained. The range here is from 110 hours to 370 hours. As each session is divided into two periods, the total number of hours per year spent on any one subject is 81, nearly twice the time in the classes of the Young Men's Christian Association.

How does this compare with the time spent on any one subject in our day high schools? If we take a subject like algebra, which is usually studied in all these schools, we may arrive at a fair comparison. If we consider their median term to be 36 weeks, and the number of recitation periods per week to be 5, and these 40 minutes

* Report of the Massachusetts Commission on Industrial and Technical Education, p. 21.

each, we have a total of 120 hours per year; this against 81 hours in the evening schools and 44 in classes of the Young Men's Christian Association. In only 3 of the 13 evening high schools does the number of hours per subject reach 100.

Some of the complicating conditions which render a definite statement impossible are here outlined: (1) Account must be taken of the relative capacity of the pupils in the three types of school. There can be no doubt that the pupils, as a whole, in the evening high schools represent a stronger type, intellectually as well as physically, than those in the day high schools. The same may be said to a somewhat less degree of those in the classes of the Young Men's Christian Association. (2) The evening pupils are also more mature than those in the day schools. (3) The very fact that they go to evening school and take algebra, for instance, shows that their interest in it is strong. These three factors may operate to increase materially the amount of work which it is possible to accomplish in a given time, and thus render the disparity between the hours actually spent in recitation of little moment. On the other hand, operating against an equal accomplishment are the following: (1) The hours of labor of the evening school students, in consequence of which they may not be at their best intellectually, and (2) the lack of time for outside study, practically all the time spent on a subject being in the class room. It is impossible to determine the effect which each of these factors has upon the amount of work accomplished.

As only two subjects can be pursued at a time in the evening schools, the day and evening schools can only be compared by points. Taking this into consideration, it seems probable that three years of work in our better evening high schools may be about equal to two years in the day high schools. It certainly could not be equal to more than this. In the majority of schools it would be much less.

An ambitious young person could not, according to this, complete his high school course by evening study, under the most favorable circumstances, in less than six or seven years, if he were expected to pursue every subject. This time could be somewhat shortened by the elimination of certain elements included in the curriculum of the day high school. It would seem that this might be done without lessening the value of the training received, in view of the industrial training the young person is receiving in his daily work.

VI. THE PLACE AND PURPOSE OF THE CONTINUATION SCHOOL.

Place of the continuation school.—In America we are justly proud of our free system of public education, by which it is possible for the boy or girl of any station in life, rich or poor, to secure the best education offered. With no restrictions in regard to race, color, or class, he or she is able to pass through the elementary school, the high school, and in several States, especially in the Middle West and West, the university. This system is peculiarly American and reflects to a great extent the national ideals.

It is generally conceded that it is the duty as well as the right of the State to require a certain minimum of education from its citizens. The only means to attain this which has so far been found practicable is a law requiring children to attend school up to a certain age, generally 14 years. Beyond that point there has been great hesitancy manifested in the employment of compulsion. That is the age when the child begins to be industrially productive and when he is supposed to have in his possession the tools which will enable him to get along fairly well among his fellows. Up to that age the State has not only offered an opportunity for education, but, theoretically at least, has compelled the individual to take it.

There seems to be very little objection at present to the plan of providing at public expense opportunities for further education, even through the university, but it is considered unnecessary and unwise to compel anyone to make use of them. The belief that the State is justified in providing this further opportunity, even though only a comparatively few are fitted to take advantage of it, rests on two main conceptions: (1) That all men are not equal in respect to intellectual ability, and in consequence are not able to profit equally by educational training, and (2) that the selection and training of leaders are essential to progress. Up to within a comparatively recent period the opportunity for further education offered has been along somewhat narrow lines. Consequently the field from which the selection has been made has not been as broad as the ideal of democracy would demand.

There are certain fairly well-defined classes which are not reached by the regular public day schools. (1) Many lack the mental ability to profit by the work in the upper grades and the high school. This training does not adequately meet their needs. (2) Of those who are mentally capable, many drop out of school and go to work at the end of the elementary school, or even before. Some of these are compelled, through poverty, to begin to earn something, either for their

own support or for that of the family. Others find the formal work of the school less attractive than the productive activities of life. They and their parents can see little practical value in the traditional four years spent in the high school, compared with the same time spent in learning some occupation. As we have seen, hardly one-half of those who complete the eighth grade ever enter the high school, and only about one-fifth graduate. When we consider the small number of these latter who enter college or university life, we see that the "out-of-school class" above 14 years old greatly outnumbers that in school.

Great effort is being put forth at present to enlarge the field of education, especially in the direction of giving a better representation to the very important industrial element. Since the great majority of young people will enter commercial or industrial life, the demand is growing more and more insistent that public schools supported by public money shall offer opportunities also along these lines; that training for the actual life work in which these young people will engage is absolutely necessary. There can be no doubt that the criticism of our public school system as at present conducted is merited. Dean James E. Russell, in his annual report for 1905 (p. 156) says: "It is not difficult to believe that boys and girls who have been roused to high ambitions in their school course should conceive a hostile, not to say anarchistic, attitude toward a society that does not permit them to secure competent instruction for their occupation as men and women."

This feeling, which is becoming more and more common, has shown itself (1) in the establishment of technical, mechanic arts, and manual training high schools; (2) in the opening of trade schools by individuals, societies, and lastly by the public school authorities; (3) by the effort to introduce industrial subjects into the elementary schools. All these movements are making it possible for many more children to profit by the opportunities for further education. We may expect as results a wider selection of leaders, increased efficiency in production, and a more intelligent and humaner life for the worker, and consequently for all.

To what extent all these improvements will ultimately reduce the enormous withdrawal of pupils from our schools we can not determine. They will be amply justified if they do this even in a small degree. The warmest advocates of the new plans must admit that there will be a great many who will not be reached. To provide for these is the proper field of the continuation school. Its purpose is to help those who are already at work, to afford them opportunities for development along broader lines than are found in their daily work, and to make them more efficient citizens. There will

always be a place in the educational system for schools of this type, and the comparative need for them will be determined by the number not reached by the regular schools. Just now the need is especially great.

Purpose and aim.—The general purpose of all education is the same—to fit the individual by means of his personal development for active participation in the social order of which he is a part. This is shared alike by the regular day school and by the continuation school. Since different social orders demand different kinds of training, the particular aims of education suited to one country will not be adapted to the conditions in another. This is as true of the continuation school as of any other educational agency. Hence it is impossible to adopt in toto the plan followed in any other country. The aim of the continuation school in Germany is largely to make "efficient industrial units," and the system and methods employed are well adapted to this end. The results from this point of view have been very satisfactory. In America this aim is not sufficient; there must be also included a broader training for citizenship. While in any country the aim of the continuation school and that of the regular school must be the same, the immediate aims and methods will depend on the conditions under which the work is done and the needs of the people. These needs may materially affect the methods employed.

Continuation schools in America are at present and for some time to come must be differentiated along three main lines. First is the work among foreigners, who come here in such great numbers. They usually know little of our language and less of our customs and ideals. The work of making these over into citizens is no small labor, and the method employed can not be the same as that used for other classes. To begin with, they must be taught in the shortest possible time to read and write English. They must also be introduced to our customs and to the ideals peculiar to America. After the work of assimilation has gone so far that the foreigner becomes reasonably well adjusted to the new conditions he will, if he needs any further help, fall into one of the other classes to be described, for there are as great differences among the foreign immigrants as among ourselves.

In the second line comes the work among the illiterate. Hitherto the elementary evening schools, which are essentially for illiterates and foreigners, have been concerned with making up deficiencies, with enlarging the field of the elementary school, and repeating its work. It scarcely needs to be said that this is of the utmost importance. Democratic ideals and illiteracy can not exist side by side. No person can perform his proper function in such a society as ours if he does not have at least a reasonable command of the ordinary vehicles

of communication and of business; but such work alone is not sufficient for the making of good citizens. Society must, in self-defense, if for no other reason, provide further means of training.

The majority of the native Americans in our elementary evening schools represent a lower type of ability, intellectually, than those in the evening high schools. This difference will be still more marked in the future. Work of a higher type does not appeal to them, nor is it what they need. They need most training along lines which will make them self-supporting citizens. To this end there should be introduced the trade and industrial elements, which will tend to increase the efficiency of the laborer. There can be no question but that the laborer who is able to support himself and his family is thereby made a better citizen, not only in the sense that he is no longer a burden upon society, but that he becomes more self-respecting and responsible. It is probably true that for many of this class the greatest personal development can be secured by actual participation in productive activity, supplemented by work in the continuation school along the lines suggested. Another valid reason for the general introduction of the trade and industrial element is that in this way greater interest can be secured and larger numbers can be reached. In many cases, if not in all, the necessary work in arithmetic and English can be grouped around the industrial studies as a center. This work will then really function in the life of the laborer. Much can undoubtedly be done toward counteracting whatever narrowing influence the purely vocational work may have, both by the method of treatment of the subjects studied and perhaps also by the addition of other subjects so chosen and adjusted that they take their starting point in the industrial interest of the individual.

The third kind of work for continuation schools is that for young persons of considerable natural ability and ambition, who are fitted by nature to occupy positions of responsibility. From this class come many of the strongest leaders of society. To reach these persons with adequate training and stimuli for development along useful lines will greatly broaden the field for the selection of leaders.

The essential conditions of progress, especially in a democracy, are (1) the selection of leaders whose ideals are in harmony with the ideals of democracy and (2) the training of these in such a way that they will minister most directly to the needs of the people. Our schools, as now conducted, are agencies for the selection of leaders, but the field from which these leaders are chosen is too narrow and the types of leaders chosen do not represent all classes of society.

The immediate aim of the higher continuation schools will be determined, as with others, by the needs of those whom they are designed to reach. We know that the needs of this class are more varied even than in the case of the elementary school. It would seem,

then, that the continuation school should be so conducted that it will interest all who can profit by its training, and that it should offer opportunities in many kinds of work. Thus far the greater emphasis in our public evening high schools has been on the subjects pursued in the day high school—i. e., those preparing for college and university. This certainly is perfectly justifiable if the majority of the young people who can be reached by this agency wish to prepare for college, or if they can in this way become better prepared for their work. It needs no statistics to show that the reverse is the case. There are some, we know, in our evening schools who do desire to prepare for college and are securing this preparation. It is right that the schools should afford this opportunity. But the purpose of these schools is by no means realized if the work stops here, or, we may say, if it begins here. The great majority of the young people who are out of school are not looking forward to literary pursuits or to other occupations for which a college education is essential.

The interests and needs of the majority are in commercial, industrial, and technical courses. Their original interest in these courses is greatly strengthened by the fact that they are no longer dealing with the theoretical side of life; they are in the midst of its activities, of its fierce competition. They feel the pressure of economic conditions. They are eager to secure any means by which they may be able to work to better advantage, anything which will enable them to command better salaries or higher positions. The great interest shown by young people in all the courses of the Young Men's Christian Association, of evening schools, and of other institutions which, in their opinion, offer opportunities for this help, shows that there is no lack of ambition nor of willingness to work. From these considerations it is clear that the principal work of the continuation school of the higher type should be along technical, commercial, and industrial lines, while still offering courses which are more distinctly preparatory for college and university work.

Nor is the work of the continuation school complete even with the training of the classes mentioned. To fulfill its mission completely, it must offer opportunity to all men and women who are at work and need further educational training. This may be by lectures, by social clubs, by training along special lines. In a word, the continuation school of the future must take the individual where the regular day school leaves him, and give him the opportunity of further educational training along lines suited to his individual needs. This complete ideal is even now beginning to be realized in the various kinds of evening schools, public lecture courses, and extension courses generally. The only difficulty with it at present is that the lines of training offered do not meet the greatest needs.

Educators are coming to realize that an education which does not fit one in some measure for a vocation lacks an element not only essential to the success of the individual, but also essential to true culture. It thus defeats its own end. The traditional courses of the day high schools, which are the models of our evening high schools, are what they are largely because originally they were themselves vocational and distinctly prepared for the ministry and to a less extent for teaching and literary pursuits. While they have been changed to some extent, yet the backbone of the work to-day has the same general character. The attempt has been made to justify this by the assertion that this line of study will secure the best development of all, whether they are preparing for a particular vocation or not. It has taken many years of experience to change this idea. The fallacy of it is now becoming apparent. The interest of the individual, his preparation for participation in social activity, the normal development of his powers, all demand a vocational element in his education.

But this vocational element must not be the only one. Two elements must enter into a complete preparation for life activities. The first may be called the practical element, that which prepares one for certain kinds of labor, for occupation, and the second is the emotional, intellectual element, through which one comes to appreciate values, to view his own life and activity in its relation to the social order. The latter is what has been termed liberal education or culture. The tendency of division of labor has been to separate the emotional from the practical; to eliminate from certain kinds of industry all emotional, appreciative elements, and to combine these in other activities which to some degree lack the practical side. The tendency in education has been to emphasize this separation, to give to those who are in industrial pursuits little of the imaginative element which would enable them to appreciate the value and place of the work in which they are engaged.

Just now the movement for industrial education is almost entirely toward a distinct preparation for certain kinds of labor—toward assisting the individual along practical lines. The emphasis on this practical side is due to the lack of provision to this end in previous schemes of education, and to the great need of a certain class of people at present, for help in becoming self-supporting citizens. Education for this class can not stop here if it is to be really effective. It must "prepare the individual in advance for complete or balanced participation," as pointed out by Professor Dewey. The industrial and commercial classes, as we have seen, are those who most need the appreciative, cultural element in their training, because they do not get it in their daily work. Any scheme of education which simply prepares them for performing such activities, while it will probably

do more good on one side than the traditional type, will still tend to emphasize the separation of the two essential elements and result in a one-sided development. In America, more perhaps than in any other country, we can not have this separation of classes. Every individual, to be a good citizen, must be well balanced with respect to these two elements. The fact that by the division of labor some are denied by society the opportunity of securing, in their daily occupation, one of the essential elements of normal development, makes it imperative for society to provide the means for attaining this, and to make the greatest provision where the need is greatest.

One of the great problems for the educator to-day is to secure this appreciative, liberal, cultural element from studies which aim to prepare for industrial activities. It can not be foisted on the student or the worker. Attempts have been made repeatedly, but without success, to introduce into evening schools for this class of people the subjects of the day schools which are considered broadly cultural. They do not touch the life of the industrial worker, and therefore it is impossible in most cases to interest him in them. If he is compelled to pursue such studies, he will usually do it only in order to obtain the other training which he wants. We must start with the dominant interest of the individual and work outward from this. Industrial and commercial subjects will necessarily form the core around which other studies are grouped in such a way that their vital significance will be clearly appreciated. It is in the continuation school that the need for this grouping is felt most keenly, both because of the class of people reached and because the amount of time available for educational training is so small. How this can be accomplished is one of the most important problems for the future to solve.

Continuation schools have a work to perform which is of the first importance, not only because they have a larger field than any other class of schools except the elementary schools, but also because the need of people of more advanced age for training—training both for their vocations and for intelligent citizenship and participation in the social order—is greater than is the need of younger people. The work of these schools will increase in scope and value according as the particular needs of individuals are carefully studied and as the methods are adapted to meet these needs.

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INDEX.